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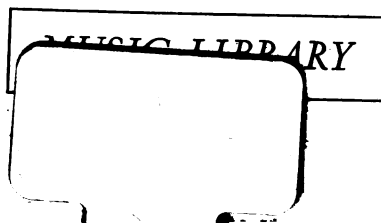
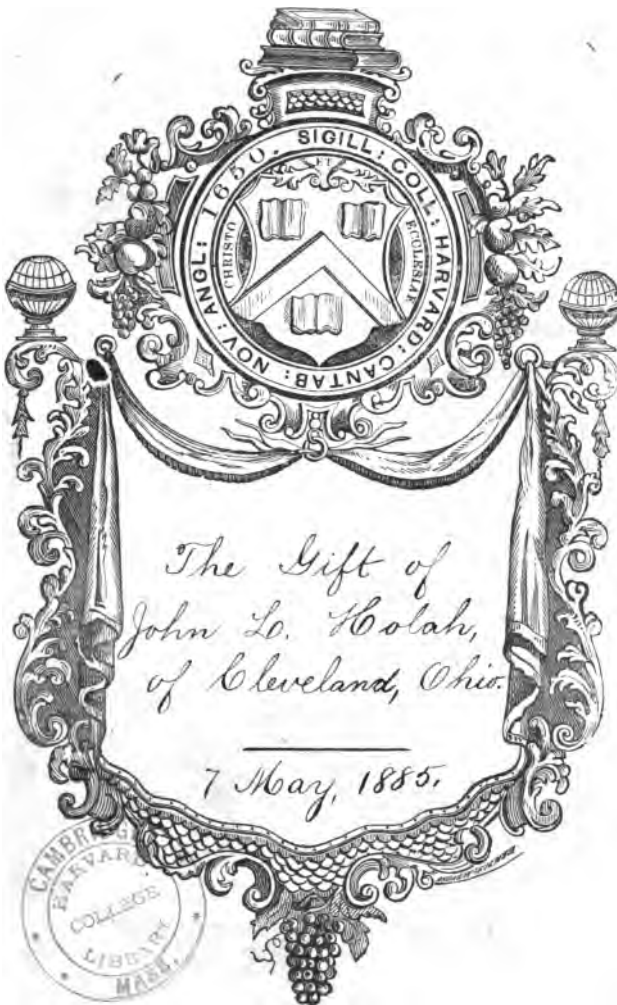
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EASY METHOD
OF
MODULATION
J. H. CORNELL

NEW YORK — G. SCHIRMER

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AN
EASY METHOD
OF
MODULATION

BY MEANS OF
UNIVERSAL FORMULAS

BY
John
J. H. CORNELL.



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PREFACE.

Almost every teacher of Harmony can count among his amateur pupils a large (perhaps the greater) number, on whom he feels that his instructions are in great part wasted, at least in the sense that they are not applied to some practical purpose, as, for instance, in musical composition or improvisation, for which such pupils have no talent. It is for this large class of harmony-pupils that I have prepared the present work, as offering to them some tangible fruit to be gathered from their studies. For, if such persons *will* study harmony, they must be assumed to have some aim or other in so doing; and since they do not compose, the next best application of the study of harmony is undeniably the practice of DIGRESSIVE MODULATION — a purely mechanical thing, within the reach of all.

Those, therefore, who desire to study harmony sufficiently to be able to pass correctly from one key to another — an accomplishment rarely met with in music-amateurs, even though advanced piano-pupils, — will find assistance in the present work. I have endeavored to combine in my system

the utmost simplicity and facility. Simplicity of *material*,—the only chords used being *major and minor* TRIADS (the knowledge of other chords being dispensed with, and even the major and minor Triads appearing mostly in one—the simplest—form only); simplicity of *chord-connection*,—the Triads being, in each modulation, without exception, *inter-connected* from beginning to end, admitting the application of the very easiest kind of chord-connection, and rendering faulty progressions impossible. With all its simplicity, the method is, so far as it goes, very thorough and exhaustive, and forms an indispensable and solid basis for the most complete course of harmonic study. The key-harmonies being severally represented by numerals, the pupil has to translate these numerals into the corresponding Triads, according to the key, and is thus taught to think for himself, — especially when, instead of this translation from given formulas, he has to construct the formulas for himself, on given principles. In fact, to go through this method thoroughly is to acquire, with positive certainty, an exhaustive knowledge of the principal Triads of all the keys, major and minor; which knowledge is, as every one knows, the ABC of the study of Harmony.

It should be borne in mind that in this method every thing is professedly subordinated to the one great consideration — *the greatest simplicity and facility* possible; a system of *elegant* and *ornate* modulation would presuppose on the student's part a much more advanced harmonic knowledge than is required for the present method.

By way of SUPPLEMENT to this book I have prepared three *Tables*,* in which the 872 modulations are classified

* Published separately under the title: "Tables of the 24 major and minor keys". G. Schirmer, N. Y.

under every possible aspect. They will be found useful for reference, and have this advantage, that they are applicable to the practice of Modulation in general, having no exclusive bearing on the present or any other special method.

The “Primer” frequently referred to in this work is the author’s “Primer of Modern Tonality”, 2^d edition, 1877, New York, G. Schirmer.

I cannot conclude without acknowledging my deep obligations to the admirable theoretical system of the late lamented CARL FRIEDRICH WEITZMANN, of which I profess to be a follower.

New York, June, 1883.

J. H. Cornell.

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CHAPTER I.

Modulation, in general.

1. To modulate, in the strict sense, is, in general, to pass by means of appropriate harmonies from one key to another. For the sake of terseness we will call the key just left the OLD KEY, the other one the NEW KEY. By "appropriate harmonies" we mean in general such chords as form, in connection with a short harmonic formula called CADENCE (see Chapter IX), a bond of union between the old Key and the new. The harmonies used in this work are exclusively *major and minor* TRIADS, as being the easiest chords to manage.

2. We may touch upon the domains of a foreign key without intending to leave the original key, — this would not be to modulate, in the strict sense. If, however, we not only pass over into the domains of a foreign key, but *settle down* in the key by means of its *characteristic harmonies* embodied in a *Cadence*, this plainly indicates the relinquishment of the original key, or, in other words, DIGRESSIVE MODULATION. Our means of modulation is, then, the CADENCE, in conjunction with certain preceding Triads connecting it with the old key.

3. In our method we reach the new key in every case by means of *one and the same* simple Cadence-formula, which varies only according as it is to be used for the *Major* or the *Minor Mode*. The manner of proceeding is perfectly simple. The determination of the new key to which we are going, of course, also determines the *Cadence* as being *in that key*, and our task is to leave the old key by such of its harmonies as can be — as shortly as possible — properly connected (either immediately or mediately) with the Cadence itself. A homely illustration may serve to make this clear. We may imagine a railway-train, carrying with it an arrangement in the form of a movable switch, which can be laid down and

stretched out as may be required, to enable the train to leave the main track and connect with auxiliary roads, each leading to a particular station, more or less remote. The Cadence may be likened to one of these auxiliary roads; for, as soon as we have safely *made the connection* (from the old key to the initial Triad of the Cadence) by means of the movable switch (the intermediate Triads, few or many), we leave the main track (the old key), and our task is as good as done, — the auxiliary road (the Cadence) will unerringly conduct us to the desired new station (the new key).

CHAPTER II.

Major and Minor Triad. — Key. — Mode.

4. A TRIAD is a chord or harmony of *three tones*, viz: a tone called *Fundamental*, or *Root*; a tone forming an upper *Third* (major, or minor, as the case may be); and a tone a *Third* above this last one, and forming an upper *Fifth* (always *major*, for the purposes of this work) to the Root. (N. B. In the Examples the Root is shown by an open note.) If the *Third* is *major*, we have a MAJOR TRIAD, as at *a*), Fig. 1; if *minor*, a MINOR TRIAD, as at *b*). The Triad with *minor Third* and *minor Fifth* is not used in this work.



5. The Triad has *three FORMS*, one *primary*, two *derivative*. For, the *root* of a Triad does not always appear as at *a*) and *b*) above, *i. e.*, as *lowest tone*. When it does so appear, the Triad is in *primary form*. But, two other arrangements of the tones are possible: the Triad $\frac{E}{C}$, for instance (Fig. 2), appearing in primary form at *a*), may also have as lowest tone its *Third*—*e*, as at *b*), — first derivative form, or its *Fifth*—*g*, as at *c*), — second derivative form.



6. Triads are used in this work in the *primary* and — less frequently — the *second derivative* form only. The primary form is

indispensable for a *full close*; the second derivative form is peculiarly adapted for the *Cadence* (as we shall see later), in which connection only it will appear in this method.

Key.

7. A KEY, in the harmonic sense (with which alone we are here concerned), is a family of inter-related Chords or harmonies, comprising *Consonances* and *Dissonances* (*Primer*, Chap. X). Only *consonant* Chords are suited to the purposes of this work. The only consonant Chords are *major* and *minor Triads*; these will form, therefore, our sole harmonic material. Accordingly, a Key is, for us, a family of inter-related *major* and *minor Triads*.

Modes.

8. Every key has its two MODES, the one called MAJOR, the other, MINOR. It will be most convenient to explain this through the structure of the two so-called *model keys*, viz: *C* (major) and *a* (minor).

9. The *principal tone* of a key being its TONIC, on the 1st degree of the scale of the key, the *principal TRIAD* of the key will be that of the TONIC; the Triads next in importance are that of the SUBDOMINANT, on the 4th degree, and that of the DOMINANT, on the 5th degree of the scale. These three Triads of a key, in conjunction, constitute its *characteristic harmonies*, differentiating it from every other key. By them, moreover, the *Mode* of the key is determined; for if they are, in their normal condition, collectively *major* Triads, the MODE is MAJOR; if *minor* Triads, the MODE is MINOR.

10. In the model key whose scale is represented in Fig. 3, the three characteristic Triads are seen to be *major*; in that whose scale is given in Fig. 4, they are *minor*. The former key is therefore known as that of *C* in the *Major Mode*, or shortly, of *C-major*; the latter as that of *a* in the *Minor Mode*, or, of *a-minor*. As being natural keys and requiring no chromatic signature, they are the best adapted for serving, respectively, as models or representative keys of the two Modes.

3. 

C: I IV V
Tonic. Subdom. Dom.

4. 

a: i iv v
Tonic. Subdom. Dom.

NB. (a) A *large capital* expresses the name of a *major key*; a *small capital*, or preferably, a *lower case letter*, that of a *minor key*. Accordingly, *C* stands for the *major key* of which that tone is Tonic, and *a* for the *minor key* having for Tonic the tone *a* — and similarly of similar cases.

(b) A *numeral*, in this work, represents not merely a degree of the scale, but also the *Triad* seated on it. A large numeral always denotes a *major*, a small one a *minor Triad*. Thus, **I** stands for the Tonic Triad of any one of the 12 major keys; **i**, for that of any one of the 12 minor keys. To express the Tonic or any other Triad of a *particular key*, a letter, with colon, is placed before the numeral, as *G*: **I**, Tonic Triad of *G*-major; *a*: **IV**, Subdominant Triad of *a*-minor; *C*: **V**, Dominant Triad of *C*-major, etc.

Questions.

What is a *Triad*? Describe the structure of a *major Triad*; then that of a *minor Triad*. — How many FORMS has the Triad? What is the peculiarity of the *primary* form? of the *1st derivative* form? of the *2^d derivative* form? Which form is necessary for a *full close*? For what is the *2^d derivative* form specially adapted? What is a KEY, in the harmonic sense? Among the harmonies of a key which are the only *consonant* ones? How many MODES has a key? Which are the three principal or *characteristic harmonies* of a key? What bearing have they on the *Mode* of the key? In which Mode, then, is a key whose characteristic harmonies are normally *major Triads*? In which Mode is a key whose characteristic harmonies are normally *minor Triads*? What is the symbol of the *Tonic Triad* of a *major key*? of that of a *minor key*? of the *Subdominant Triad* of a *major key*? of that of a *minor key*? of the *Dominant Triad* of a *major key*? of that of a *minor key*?

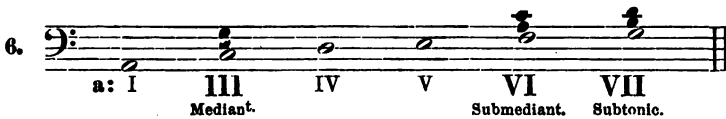
CHAPTER III.

Major and Minor Triads of the Major and the Minor Mode.

11. The *major Triads* in the key of *C*, representing the *Major Mode*, being severally seated, as we have seen (Fig. 3), on the Tonic—I, Subdominant—IV, and Dominant—V, we construct the *minor Triads* by adding the Third and Fifth to the other degrees of the scale (except the *seventh*, not suited to our purpose, as being the seat of a *dissonance*), viz: the *Supertonic*—II, the *Mediant*—III, and the *Submediant*—VI, as in the following example.



12. The *Minor Mode*, as represented by the minor key of *a* (Fig. 4), shows *minor Triads* on the *Tonic*—I, *Subdominant*—IV, and *Dominant*—V, respectively. We obtain its *major Triads* by adding the Third and Fifth to the other degrees of the scale (omitting the *second*, as seat of a dissonant Triad), viz: the *Mediant*—III, the *Submediant*—VI, and the *Subtonic*—VII.



13. The two Modes have thus far been considered in their *normal* form. A key of either mode is normal when its tones, without exception, correspond strictly to the *key-signature*. But, in practice, each mode undergoes certain *modifications*, whence arise the so-called *MILDER MAJOR MODE*, and *BOLDER MINOR MODE*. We are concerned here with only *two* of these modifications, — one for each Mode.

14. The *MILDER MAJOR MODE* arises from the occasional depression — by a chromatic half-step — of the *sixth degree* of the scale. This depression concerns us only so far as it affects the *Subdominant Triad*. As the tone on the sixth degree is the *Third* in the Subdominant Triad (Fig. 3), which is *normally* a MAJOR Triad, it is clear that the *depression* of this Third will make the Subdominant a *minor Triad*. Hence the name “Milder Major Mode”, for the introduction of the *minor Subdominant Triad* serves to temper the somewhat aggressive character of the *normal* Major Mode, with its characteristic Triads collectively *major*.

The *minor Subdominant Triad** is represented (see Fig. 7) by a *small numeral*—(IV), the parentheses denoting, here and wherever else they occur in this work, a deviation from the *normal mode* of the key.

15. According to the following illustration of all the consonant

* It is hardly necessary to observe, that though the Subdominant Triad in the *Minor Mode* is *minor*, yet the expression “Minor Subdominant Triad”, and its symbol—(IV), refer exclusively to the (milder) *Major Mode*, in which the minor Subdominant is not normal.

Triads of the model major key of *C* (both normal and in the Milder Major Mode),



we may sum up the major and minor Triads of the *Major Mode in general* in a scheme or formula which will apply to any key of that mode, as follows:

three *major* Triads: I, IV, V.

four *minor* Triads: II, III, (IV), VI.

16. In the BOLDER MINOR MODE, on the other hand, the gentle character of the normal mode, with its characteristic harmonies collectively *minor*, is tempered by the occasional chromatic *raising* of the *seventh* degree of the scale. This raising (not to speak of other effects, with which we are here not concerned) changes the (*normally* MINOR) *Dominant Triad* into a *major Triad*, in as much as the tone on the seventh degree is the *Third* in the Dominant Triad.

The *major Dominant Triad** is represented (see Fig. 8) by a large numeral, V, in parentheses, thus: (V).

17. From the following illustration of all the consonant Triads of the model minor key of *a* (both normal and in the Bolder Minor Mode),



we derive the subjoined scheme of the major and minor Triads of the *Minor Mode in general*, applicable to any key of that mode:

three *minor* Triads: I, IV, v.

four *major* Triads: III, (V), VI, VII.

Questions.

In the *Major Mode*, on which degrees of the scale are the *minor* Triads seated? Give the *name* of each of these Triads, and the *symbol* (numeral) by which it is expressed. — In the *Minor Mode*, on which degrees of the scale are the *major* Triads? Give the *name* of each, then its symbol. — In which *form* has each Mode been represented,

* Just as the expression "Minor Subdominant" applies to the (milder) *Major Mode* only (see *Note*, p. 5); so the term "Major Dominant", and its symbol—(V), refer exclusively to the (bolder) *Minor Mode*, in which the major Dominant Triad is not normal.

thus far? When the tones of a key correspond exactly with the *key-signature*, what is to be said of the key, as to its form? Name the two *modifications* of the normal Modes. — What is the peculiarity of the so-called Milder Major Mode? Why is this modification so called? What is the *symbol* of the *Minor Subdominant Triad*? Since the Subdominant Triad in the *Minor Mode* is *minor*, what is to be said of the application of the term “Minor Subdominant” to the *Major Mode* (*Note*, p. 5)? Sum up the major and the minor Triads of the *Major Mode in general*. — What is the peculiarity of the Bolder Minor Mode? Why is this form of the mode so called? What is the *symbol* of the *Major Dominant Triad*? Why is this expression used, seeing that the Dominant Triad of the *Major Mode* is *major* (*Note*, p. 6)? Sum up the minor and the major Triads of the *Minor Mode in general*.

CHAPTER IV.

The Major and the Minor Mode in all the keys.

18. It being assumed that the previous chapter has been thoroughly studied and digested, and also that the student is perfectly familiar with the Diatonic Scales — major and minor — of all the keys, it is the aim of the present chapter to render him equally familiar with the *harmonies* (meaning here the major and the minor Triads) of each and every key, in both its modes. Besides knowing what *tone* is on such and such a degree of the scale of a given key — major or minor, so as to be able to name the tone or sound it on the piano without the least hesitation, the student should be able also to name or play with equal promptness the particular *Triad* seated on the degree indicated. To this end the present chapter is devoted to the following practical exercises, to be worked out partly in writing, partly at the piano.

Exercises.

I. (In writing). — a. Write down in notes* the Triads — grouped according to the two species (as in the *scheme* given in paragraph 15)

* As to the *pitch*, all that is required is that the Triads be severally seated on the *right degrees of the Scale* of the key, keeping them, however, as much as possible within the compass of the staff without added lines. For

— of each *major* key with *sharp* signature (*G, D, A*, etc.). The *signature* is, however, to be *omitted* in every case, and the sharps or flats are to be added to each Triad, when necessary to its proper notation. — **b.** Write in the same way the Triads of each major key with *flat* signature (*F, B♭, E♭*, etc.). — **c.** Write in the same way the Triads — grouped as in the scheme in paragraph 17 — of each *minor* key with *sharp* signature (*e, b, f♯*, etc.). — **d.** Write in the same way the Triads of each minor key with *flat* signature (*d, g, c*, etc.).

II. (At the piano). The teacher dictates a key — alternating major with minor keys, and requests the pupil to play its various major and minor Triads, grouping together those of the same species, as in the schemes respectively given for the Major and the Minor Mode (paragraphs 15, 17). For accustoming himself to the *symbols* used to express harmonies, the pupil should at each Triad give its *name* in relation to the key (Tonic, Dominant, Mediant, etc.) and its symbolical expression, as for instance: Tonic Triad, large I, or small I, as the case may be; Dominant, large V, or, large (V) in parentheses; Mediant, small III, or, large III, etc.

CHAPTER V.

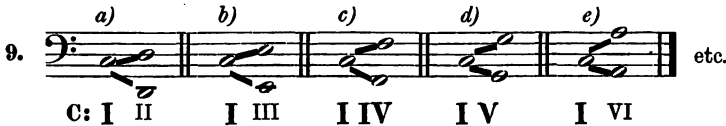
Inter-relationships of the Triads of a key.

19. The Triads of a key, considered in pairs, are *inter-related*, either *directly* or *indirectly*. The treatment of Triads which are so paired as to show *indirect relationship* involves certain difficulties; hence we shall have nothing to do with them in this work, which professedly follows the easiest method.

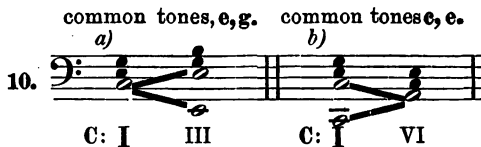
20. Two Triads of a key are *directly* related when they have a *tone*, or *two tones*, in common. This will always be the case when their respective *roots* form a THIRD or a SIXTH, a FOURTH or a FIFTH. When, however, the roots of two Triads form a SECOND or a SEVENTH, the Triads are *indirectly* related, as having no tone in common.

this purpose the Subdominant Triad — for instance — may be written on either the Fifth below or the Fourth above the Tonic Triad, according to convenience, — and so on of other cases. The Triads should be written alternately on the staff with *G*-clef and that with *F*-clef, for the sake of acquiring equal familiarity with both.

REMARK. With reference to the expressions “a Third or a Sixth”, and “a Fourth or a Fifth”, used above, be it said here, once for all, to prevent any possible misunderstanding, that *for harmonic purposes* any two tones of a key may be, with equal correctness, so written as to form either an *ascending* interval, or its inversion* — a *descending* one, according to convenience**. Thus, in the key of C-major, for instance, *c* and *d* may form, as in the following figure at *a*), either an ascending *Second* or a descending *Seventh*; *c* and *e*, as at *b*), either an ascending *Third* or a descending *Sixth*; *c* and *f*, as at *c*), a *Fourth* or a *Fifth*, etc.



21. Two Triads whose roots form a *Third* are TIERCE-RELATED, and have *two tones* in common; the same is the case when the roots form a *Sixth* (inverted Third), — as here illustrated:



22. It is seen from the example at *a*) that whether the root of the 1st Triad rises a Third or falls a Sixth is indifferent, — the 2^d tone — *e*, and the Triad on it are the same in either case. Exactly the same may be said of the example at *b*). Instead, therefore, of relating Triads both by the Third above and the Sixth below, the Third below and the Sixth above, it is evidently simpler to reduce these relationships to *one kind*, in *two species*, viz: TIERCE-RELATIONSHIP, *upper* and *lower*. Thus, relating two Triads by the *Third above* (identical with the *Sixth below*), the 2^d one will be in *UPPER tierce-relationship* to the 1st (as at *a*), Fig. 10); by the *Third below* (identical with the *Sixth above*), the 2^d one is in *LOWER tierce-relationship* to the 1st (as at *b*). When, therefore, among the Triads of a key the root of one falls a Sixth — to the root of a 2^d Triad, we will for our purpose regard the progression as an *ascending*

* See *Primer*, Chapter IX.

** We shall see later, however, that what is not incorrect *harmonically* may be bad *melodically*; so that under certain circumstances *c e* forming a *Third* may be better melody than *c e* forming a *Sixth*, etc.

THIRD, not as a Sixth, except perhaps for memorizing by the *contrariety* involved, — *falling* Sixth, *upper* tierce-relationship of 2^d Triad to 1st, and vice-versa.

23. Two Triads whose roots form a *Fifth* are QUINT-RELATED, and have *one* tone in common; the same is the case when their roots form a *Fourth* (inverted Fifth), — as in the following examples:

common tone, g. common tone, c.

a) b)

11. 

c: I V c: I IV

24. Here, too, it is harmonically all the same whether the root of the 1st Triad rises a Fifth or falls a Fourth, as at *a*); or whether it falls a Fifth or rises a Fourth, as at *b*). Hence, instead of relating Triads paired as in the above figure by the Fifth above and the Fourth below (as at *a*), or by the Fifth below and the Fourth above (as at *b*), we simplify matters by recognizing only QUINT-RELATIONSHIP, *upper* and *lower*. Accordingly, at *a*) the 2^d Triad is in *upper quint-relationship* to the 1st (related to it by the Fifth above, identical with the Fourth below); at *b*), the 2^d Triad is in *lower quint-relationship* to the 1st (related to it by the Fifth below, same as the Fourth above). Whenever, therefore, in our method the root of a Triad *falls a Fourth*, we will regard it as, practically, an *ascending FIFTH*; whenever it *rises a Fourth*, as a *descending FIFTH*.

25. Accordingly, in a key of either Mode the *Tonic* Triad — for instance — is *tierce-related* to the *Mediant* Triad, on the *Third above* (Sixth below), and to the *Submediant* Triad, on the *Third below* (Sixth above); *quint-related* to the *Dominant* Triad, on the *Fifth above* (Fourth below), and to the *Subdominant* Triad, on the *Fifth below* (Fourth above). To put it differently:

The Tonic	Triad is in lower tierce-relationship to the Mediant;						
Mediant	"	"	"	upper	"	"	Tonic;
Tonic	"	"	"	upper	"	"	Submediant;
Submediant	"	"	"	lower	"	"	Tonic;
Tonic	"	"	"	lower quint-relationship		"	Dominant;
Dominant	"	"	"	upper	"	"	Tonic;
Tonic	"	"	"	upper	"	"	Subdominant;
Subdominant	"	"	"	lower	"	"	Tonic.

26. After this exemplification of tierce-relationship and quint-

relationship between the Tonic and four other Triads, it will be easy to understand the following tables, showing the relationships of *all* the consonant Triads of a key, one to another, as illustrated in our two model keys — C-major and a-minor.

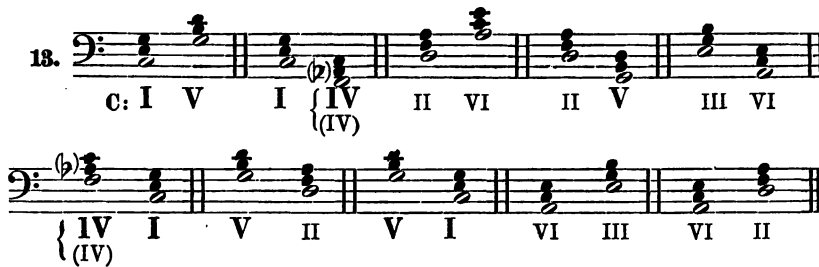
Tierce-relationships of Triads in C-major.

12. 

C: I III I VI II IV III V III I

IV VI IV II V III VI I VI IV

Quint-relationships of Triads in C-major.

13. 

C: I V I {IV} II VI II V III VI

{IV} I V II V I VI III VI II

Tierce-relationships of Triads in a-minor.

14. 

a: I III I VI III V III I IV VI

V VII V III VI I VI IV VII V

Quint-relationships of Triads in a-minor.

15. 

a: I {V} I IV III VII III VI IV I

IV VII {V} I VI III VII IV VII III

Exercises (at the Piano).

I. In the *Major Mode*, in keys severally dictated by the teacher.

1. Strike the *Tonic Triad*. Then strike, giving its name and symbol,
2. the Triad in *upper tierce-relationship* to the Tonic;
3. " " " *lower* " " " " "
4. " " " *upper quint-relationship* " " "
5. " " " *lower* " " " " "
6. Strike the *Supertonic Triad*. Then strike, giving name and symbol,
7. the Triad in *upper tierce-relationship* to the Supertonic.
8. " " " " *quint-relationship* " " "
9. " " " *lower* " " " " "
10. Strike the *Mediant Triad*. Then strike, giving name and symbol,
11. the Triad in *upper tierce-relationship* to the Mediant;
12. " " " *lower* " " " " "
13. " " " *lower quint-relationship* " " "
14. Strike the *Subdominant Triad*. Then strike, giving name and symbol,
15. the Triad in *upper tierce-relationship* to the Subdominant;
16. " " " *lower* " " " " "
17. " " " *upper quint-relationship* " " "
18. Strike the *Dominant Triad*. Then strike, giving name and symbol,
19. the Triad in *lower tierce-relationship* to the Dominant;
20. " " " *upper quint-relationship* " " "
21. " " " *lower* " " " " "
22. Strike the *Submediant Triad*. Then strike, giving name and symbol,
23. the Triad in *upper tierce-relationship* to the Submediant;
24. " " " *lower* " " " " "
25. " " " *upper quint-relationship* " " "
26. " " " *lower* " " " " "

II. In the *Minor Mode*, in keys dictated by the teacher.

27. Strike the *Tonic Triad*. Then strike, giving name and symbol,
28. the Triad in *upper tierce-relationship* to the Tonic;
29. " " " *lower* " " " " "
30. " " " *upper quint-relationship* " " "
31. " " " *lower* " " " " "
32. Strike the *Mediant Triad*. Then strike, giving name and symbol,
33. the Triad in *upper tierce-relationship* to the Mediant;
34. " " " *lower* " " " " "
35. " " " *upper quint-* " " " "
36. " " " *lower* " " " " "

37. Strike the *Subdominant Triad*. Then strike, giving name and symbol,
38. the Triad in *upper tierce-relationship* to the Subdominant;
39. " " " *upper quint-* " " " "
40. " " " *lower* " " " " "
41. Strike the (normal) *Dominant Triad*. Then strike, giving name and symbol,
42. the Triad in *upper tierce-relationship* to the Dominant;
43. " " " *lower* " " " " "
44. " " " *lower quint-* " " " "
45. Strike the *Submediant Triad*. Then strike, giving name and symbol,
46. the Triad in *upper tierce-relationship* to the Submediant;
47. " " " *lower* " " " " "
48. " " " *upper quint-* " " " "
49. Strike the *Subtonic Triad*. Then strike, giving name and symbol,
50. the Triad in *lower tierce-relationship* to the Subtonic;
51. " " " *upper quint-* " " " "
52. " " " *lower* " " " " "

CHAPTER VI.

Connection of related Triads, in general.

27. In our illustrations thus far no two Triads have been *connected*, in the proper sense of the word. It is the CONNECTION OF TRIADS, specifically of those that are *directly related*, that is now to be studied, preparatorily to the construction of the *Cadence*, our instrument of modulation.

28. In a pair of *tierce-related* Triads there are, as we have seen, *two* tones in common; in a pair of *quint-related* Triads there is *one* tone in common. These common tones are used for smoothly connecting Triads, and called accordingly, CONNECTING-TONES.

29. The process by which one chord is connected with another involves what is called VOICE-LEADING. Each tone of a chord is regarded as a *voice*, and in chord-connection each voice of the 1st chord is to be properly *led to its place* in the 2^d chord. If the voices are led to their several places with the *least possible motion*, *i. e.*, using the common tones as actual *connecting-tones*, and avoiding unnecessary *skips* (moving as much as possible from degree to degree), we have

the so-called *strict* voice-leading, as distinguished from a freer kind, in which skips are of frequent occurrence and the connecting-tones are not rigidly observed. The former is the kind which, as reducing the difficulties of chord-connection to a minimum, our method follows, with but one exception, to be noticed later.

30. In the strict method of voice-leading a pair of related Triads are connected by observing the following

Rule.

(1) *Keep the CONNECTING-TONES each in the SAME VOICE in both Triads, i. e., do not move them:* (2) *lead the other voice — or voices — by a DEGREE (up or down, as the case may be) to another tone — or other tones — in the second Triad.*

Although the connection of *terce-related* Triads is easier, we begin (for reasons which will appear later) with that of *quint-related* Triads — those of a key in the *Major Mode*, as represented by our model key, *C-major*.

CHAPTER VII.


Connection of the quint-related Triads of a Major Key.

Upper quint-relationship.

31. In the following example of a pair of quint-related Triads (written in two different ways, *a*) and *b*), both expressing the same thing),

16. 
C: I V I V

there is no *Chord-connection*: the common tone — *g*, instead of remaining, according to the Rule, in the *same voice* (upper voice) in both Triads, thereby serving as *connecting-tone* between them, *moves* to another tone — *d*,* thus *g* appears in the 2^d Triad in another

* Thereby making, with *c*, moving to *g*,  the faulty progression called *parallel Fifths* (less properly, *consecutive Fifths*), the *bête noire* of beginners in Harmony. Fortunately, the modulations of this method are all so arranged that we can never by any possibility encounter so dreadful an apparition.

voice, viz: the *lowest*. Again: the two other voices move, to be sure, to tones of the 2^d Triad, but do not move *by degree*, so as to go to the *nearest* tones; for, *e* makes a *skip* to *b*, whereas *d* is on the *degree below*, and *c* skips to *g*, whereas *b* is on the degree below.

We correct all this by following the Rule: 1. The connecting-tone — *g* — *does not move* (to signify this we will tie the two *g*'s)



— 2. The tone *e* moves by a *degree* — *below*, in this case, to the *nearest* tone of the 2^d Triad, viz: *d*; the tone *c*

moves similarly, and goes to *b*:



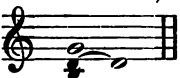
The two Triads are

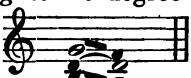
now properly connected.

32. For the sake of practice we will continue from this point and form a small *chain* of four Triads in upper quint-relationship. As Fig. 13 shows, just as V is in upper quint-relationship to I, so is II to V, and VI to II. The whole chain may accordingly be represented as follows (without chord-connection).

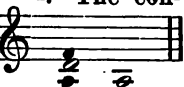


Having already connected I with V, we must next connect V — in the shape in which we left it at the end of paragraph 31 — with II, the 3^d Triad of the chain. We first look for the connecting-tone between the two Triads, and find it to be *d*, root of

II. We tie the two *d*'s,  then lead *g* and *b* respectively to other tones of Triad II, — *g* to the degree below, viz: *f**,


and *b* to the degree below, viz: *a*.  Finally, we

C: V II

connect this last Triad — II — to the closing one — VI. The connecting-tone is *a*—root of IV, and we tie the two *a*'s: 

then lead *d* and *f*, respectively, to the nearest tones of VI, viz: *f*

* True *a*, above, is as near to *g* as *f* is. But *b* — lowest voice — is bound to go to *a* — degree below, as nearest tone of Triad II. If now *g* also were to go to *a* — degree above, the Triad concerned would lack its *Third* — *f*. Therefore *g* goes to *f*, in the same direction with the lowest voice — *b*.

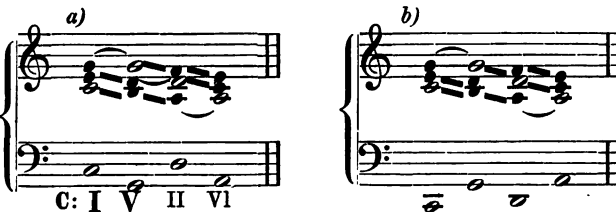
to *e*, and *d* to *c*:  These four Triads, which we
C: II VI

have thus connected according to our rule, form the following harmonic chain:

18. 
C: I V II VI

33. Here two points deserve notice. We observe, in the first place, that in the above chain, Fig. 18, the two voices which are not tied, *i. e.*, which *move*, go invariably to the *next degree, together* (here *downward*). In connecting Triads (whether tierce-related or quint-related) in our method of Modulation, whenever a voice has to move, in passing from one Triad to another, it will be ALWAYS (except occasionally in the CADENCE, of which later) either to the *degree* NEXT ABOVE, or to that NEXT BELOW. Specifically, in connecting a pair of Triads in *upper* quint-relationship, the two voices which move will always move together, each *one degree* LOWER, as in Fig. 18. For the exception, in the case of the Cadence, see par. 52.

34. We observe, in the second place, that two of the Triads of our Chain, viz: V and II, are not in *primary form*, V being in the *first derivative* and II in the *second derivative* form (see paragraph 5). This is perfectly correct, as resulting from correct voice-leading; yet a Triad in either of these forms has no strength or independence. Hence our chain, though its Triads are properly connected, lacks, as a whole, a solid harmonic foundation. This defect we remedy by adding a *fourth voice*, as lowest voice, or BASS, for carrying the *root* of each Triad, thereby affording the solid basis required, by placing the Triad in its strongest and most independent form, viz: its primary form, as in the following example:

19. 
C: I V II VI

NB. 1. The addition of a fourth voice to a Triad, as above, is not the addition of a *new tone*; the Triad remains a three-voiced

chord (in the sense of having but three *different* tones), and the additional voice is merely a DOUBLING of one of the tones, viz: of the ROOT. Just as above, so in *every Triad* throughout this method (with a single exception, to be noticed later) the ROOT *will be doubled*, appearing in one of the three upper voices and at the same time in the Bass, thus insuring the *primary form* of the Triad, in accordance with paragraph 5.

NB. 2. The statement that the voices move, in our method, invariably *by degree*, must now be explained as applying to the *three upper voices* only. The Bass will — as has just been said — carry the *roots* of the Triads; and as these Triads are either tierce-related or quint-related, the Bass must needs move *by skip*, namely in tierce-relationship, to the Third above or Sixth below, or to the Third below or Sixth above; in quint-relationship, to the Fifth above or Fourth below, or to the Fifth below or Fourth above. In our chain, Fig. 19, representing *upper* quint-relationship, the Bass, theoretically, skips *by ascending Fifths*, for instance:






But such a Bass is objectionable — to say nothing of the extensive *compass* involved — from a *melodic* point of view, as comprising three *consecutive Fifths**. A law of good melody requires the correction of such a progression by alternating *descending Fourths* with *ascending Fifths*, — as we have done in Fig. 19, a and b. We have already seen (paragraph 24) that *harmonically* a descending Fourth and an ascending Fifth are equivalent, similarly an ascending Fourth and a descending Fifth.

Lower Quint-relationship.



35. We will now form a chain of four Triads in *lower* quint-relationship, — for instance, VI II V I, — which may be represented, without chord-connection, as follows:

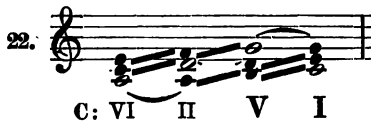


* Not *parallel* Fifths, which are formed by *two voices* moving together in a certain manner (see *Note*, p. 14), and which are often mis-called "consecutive" Fifths.

We proceed as before. We tie the two *a*'s which connect VI with II — , then lead the two other voices respectively to the tones of Triad II which are a degree distant, viz: *c* to *d*, *e* to *f* — . Next we tie the two *d*'s which connect II with V —  C: VI II

then lead *f* to *g*, and *a* to *b* — . Lastly, we tie the two *g*'s

which connect V with I —  then lead *d* to *e*, and *b* to *c* — . The whole chain will appear thus:



36. Here too we observe, first, that in passing from one Triad to the next, the two voices which move invariably move each to the *degree* ABOVE, reversing the order of *upper* quint-relationship. This will be the *rule*, in connecting a pair of Triads in *lower* quint-relationship. An occasional exception will be noticed in paragraph 51.

37. We observe, secondly, that Triad II appears in its second, Triad V in its first, *derivative form*. We therefore add a fourth voice — Bass — as before, to each Triad, for carrying a doubling of the root. This Bass, which theoretically would be this, for instance —



must be so arranged as to appear as at either a or b, in the following figure:



Exercises.

These may be worked out, either in writing or at the piano*, in each major key, first in *C*, then in *G*, and so on**; or at the teacher's discretion, in a few major keys dictated by him.

I. Form the following four harmonic chains, of four Triads each, by properly connecting the Triads of each chain, and adding the Bass-tones, according to the method illustrated in this chapter.

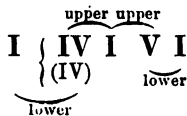
1st CHAIN (upper quint-relationship) IV I V II.

2^d CHAIN (lower quint-relationship) II V I IV.

3^d CHAIN (upper quint-relationship) V II VI III.

4th CHAIN (lower quint-relationship) III VI II V.

II. Form the following chain — which combines both *upper* and *lower* quint-relationship, by correctly connecting the Triads and adding the Bass-tones. Play the *Subdominant* Triad either *normal* (major) or *minor*, at option.



CHAPTER VIII.

Connection of the quint-related Triads of a minor key.

38. The table, Fig. 15, shows how the Triads of *a*-minor (representative key of the Minor Mode in general) are paired according to quint-relationship. The *connection* of the Triads — thus paired —

* If it is practicable, they should be done off-hand at the piano, the Bass being added at once to each Triad. For some pupils, however, the slower process of *writing* will be necessary. In either case the following details are implied: 1) Determine the *key*. 2) Strike, or write down, in a reasonable pitch, neither too high nor too low, the *tone* on the degree indicated by the first numeral of the chain. 3) Build up, on this tone, by adding Third and Fifth, the proper *Triad* (major or minor, as may be required). This gives the *initial Triad* of the Chain. 4) Add a doubling of the Root, in the *Bass*. 5) Connect this Triad with the next one indicated, afterwards adding a Bass to the latter, as before, — and so on, to the end of the chain.

** See, as to the order of keys, paragraph 61.

of a key in the *Minor Mode*, ought, after the explanations of the connection of quint-related Triads in a *major* key, in the preceding chapter, not to present any new difficulty. Dispensing, therefore, with special illustrations for this chapter, we will merely give a few exercises, to be worked out in each minor key, or, at the teacher's discretion, in certain minor keys dictated by him.

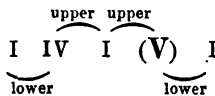
Exercises (see Note, p. 19).

I. Form, in various minor keys, the following two chains of three Triads each, by properly connecting the Triads of each chain and adding the Bass-tones, following the method illustrated (for the Major Mode) in Chapter VII.

1st CHAIN (upper quint-relationship) IV I V.

2^d CHAIN (lower quint-relationship) (V) I IV.

II. Form the following chain of mixed upper and lower quint-relationship, by properly connecting the Triads, and adding the Bass-tones, as above.



CHAPTER IX.

The Tonic Cadence.

39. In *Exercise II*, of chapter VII, also of chapter VIII, we have accomplished in a crude form our first harmonic structure, the TONIC CADENCE. This is a short formula composed of the *characteristic harmonies* of a key (see chapter II, paragraph 9); properly connected, the final harmony being the Tonic Triad. This Cadence serves for closing a piece of music or one of its smaller or larger divisions, also for modulating into a new key.

40. The characteristic harmonies of a key are, as we have seen, the *Tonic Triad*, the *Subdominant* and *Dominant Triads*, in conjunction. To make this harmonic succession a *Tonic Cadence*, the Tonic Triad must of course reappear at the close, when the formula for the Cadence would be, for the Major Mode — I IV V I; for the Minor Mode — I IV (V) I.

REMARK. In the Cadence in the *Minor Mode*, the “Major Dominant” Triad — indicated by (V) — is used immediately before the Tonic Triad in preference to the Dominant Triad in its normal condition (minor), indicated by v.

41. In the above cadence-formula the *Subdominant Triad* appears in immediate connection with the *Dominant*, whereas these two Triads are *not directly related*, as having no tone in common. But as our plan of modulation implies *direct relationship between every two Triads in immediate connection*, without any exception, we insert the *Tonic Triad* between the Subdominant and the Dominant, when the formula will exactly correspond with the two exercises alluded to at the beginning of this chapter, thus:*

in major: I { IV I V I
(IV)

in minor: I IV I (V) I

We are supposed to have already (in Chapters VII and VIII) constructed the above two chains, by properly connecting the Triads, and adding the root-bass to each, thus giving a crude form of the Tonic Cadence, — for instance, in *C-major*, for the Major Mode:

25.

c: I { IV I V I
(IV)

and in *a-minor*, for the Minor Mode:

26.


a: I IV I (V) I


42. We will now give to our Cadence a good *rhythmical form*. We will choose for this purpose the $\frac{2}{2}$ meter**, and give the Ca-

* Other cadence-forms are possible; the simplest form has been deemed best adapted to the purposes of this method, which professedly follows the easiest way.

** The *rhythmical* arrangement of a piece of music, or of a musical thought,

dence an even number of measures — say, four. To this end we extend the duration of the final Tonic Triad by an additional measure, in which, however, that Triad will take up the *first half* only, while the second half (the *unaccented* part) is represented by a half-note rest, as in the following examples.

27. 

28. 

We proceed to criticize* our work, with a view to making improvements. In the first place, we find the *Bass* stiff and monotonous; the Tonic Triad is represented in this voice each time by its *root*, whereas some other tone of the Triad — its Third, or its Fifth — might be introduced once, for giving the Bass a better melody. For greater facility of management, and for intrinsic reasons, the *Fifth* is preferable to the *Third*, for taking the place of the root. The best place for making this change is on the *second* occurrence of the Tonic Triad (which Triad must be, on its *first* and *last* occurrence, in *primary* form, as in Figs. 27, 28). Between the Sub-dominant and Dominant Triads, therefore, we give to the Bass

implies that its tones are divided up into certain time-portions, called *Measures*, of equal duration, and marked by regularly recurring accents. An aggregation of measures constitutes a *METER* (commonly, but incorrectly, called *TIME*, though this expression in music refers properly to the *quickness* or *slowness* of the *movement*, with which Meter, as such, has nothing whatever to do). Thus, in a piece in which each measure contains, *e. g.* two half-notes, the *Meter* is called *Two-two* ($\frac{2}{2}$); in another piece the Meter is *Three-four* ($\frac{3}{4}$); or *Six-eight* ($\frac{6}{8}$), etc.

* To encourage the pupil to think for himself, the teacher should let him make his own criticisms, asking him what he thinks of the *Bass* of the Cadence, as a *melody*; of the effect of the final Triad in its *position* as above (Fig. 27, 28), compared with the two other positions in which it might appear, etc.

the *Fifth* of the Tonic Triad, instead of the *root*, and the amended Cadence reads, in *major*:

29.

c: I {IV (IV)} I V I

and in *minor*:

30.

a: I IV I (V) I

REMARK. — The Bass in the *Dominant Triad* may be either in *unison* with the Bass of the preceding Triad or an *Octave below* it, at pleasure.

44. The above change forms an exception already alluded to (see NB. 1, p. 16), *i. e.*, the only instance in this method in which the Bass is *not a doubling of the ROOT* of a Triad. The Tonic Triad in this instance appears in its *second derivative form* (see paragraphs 5 and 34); and its very weakness in this form peculiarly fits it to be — as it is here — immediately followed by and as it were absorbed into the *Dominant* harmony, only to assert itself the more powerfully the moment after, by appearing in its *primary* form, as the final chord of the series.

45. In this solitary instance in which the Tonic Triad — or any other harmony — appears in this work in a *derivative* form, the tones above the Bass severally count — not as *Third* and *Fifth* (as in the *primary* form), but as *Fourth* and *Sixth* (see the 3^d Triad in Fig. 29, or 30, above), whence a Triad in its second derivative form is called a CHORD OF THE FOURTH AND SIXTH, or, shortly, of FOUR-SIX. In our Cadence the second appearance of the Tonic Triad will invariably be as a Chord of Four-six on the *accented part* (1st half-note) of the measure, and indicated by $\frac{6}{4}$ over the

numeral standing for the Tonic Triad, thus: $\overset{6}{I}$, or $\overset{6}{I}$, — meaning

that the tones are those of the Tonic Triad, the lowest voice (Bass) being in this case a doubling of the *Fifth* of the Triad, not of its *root*, as in all other cases. It should be borne in mind that the

$\begin{matrix} 6 & 6 \\ 4 & 4 \end{matrix}$

Bass of I or I is always the same tone as the Bass (root) of the immediately following *Dominant Triad* (see *Remark* to Par. 43).

46. We have applied the word FORM to a Triad, in reference to its *lowest voice*; thus, a Triad is in *primary form* when its *root* is in the *lowest voice*; in first derivative form, when its *Third* is in the *lowest voice*; in second derivative form, when its *Fifth* is in the *lowest voice*. Now, in reference to the *highest voice* of a Triad we may apply the word POSITION. Thus, a Triad is in ROOT-POSITION, when its highest voice has the *root*; in TIERCE-POSITION, when that voice has the *Third*; in QUINT-POSITION, when it has the *Fifth*. The *position* of a Triad is entirely independent of the *form* of the Triad. To give examples from Figs. 29 and 30: the Tonic Triad is throughout in *quint-position*; the Subdominant Triad, in *terce-position*; the Dominant Triad, in *root-position*.

47. In the second place, then, we may criticise the closing of the Cadence with the Tonic Triad in *quint-position*. For, this final Triad should be in every respect in its *strongest condition* possible. It should therefore be not only in *primary form* (its *root* in the *lowest voice*), but also in *root-position* (its *root* in the *highest voice* also), since either the *terce-position* or the *quint-position* would form a relatively weak ending.

48. In point of fact, every one of the modulation-formulas used in this method (see Table II) is specially arranged to meet this requirement. That is, the *initial Triad* of each modulation is directed, by a particular sign in the formula, to be in that one of the three positions, which, for the particular modulation concerned, insures the right position of the final Triad of the Cadence. However, as it would be too difficult to memorize*, in so many different modulations, the indications for the initial Triad, we must adopt some expedient whereby, with that Triad in *any one* of the three positions, we may still secure the desired root-position of the final Triad of the Cadence. This expedient is, to introduce, when ne-

* The ambitious student will not rest satisfied with being able to play the modulations from the formulas before him, but will aim at mastering the *principles* on which the formulas are constructed, so as to be able to play any modulation *extemporaneously*, as it were.

cessary, in the Cadence itself (and the nearer to its close, the better) such change of position in one of its Triads as will lead to the desired result. This change will be necessary in *two cases* only, as we shall at once see.

49. We premise that the initial Triad of the Cadence, besides being in *quint-position*, as hitherto, may also be either in *root-position*, in which case the Cadence will appear thus:

31.

c: I {IV (IV)} I V I —

32.

a: I IV I (V) I —

or in *terce-position*, when the Cadence will appear thus:

33.

c: I {IV (IV)} I V I —

34.

a: I IV I (V) I —

50. Let us now concentrate our attention upon the second occurrence of the Tonic Triad, viz: the $\overset{6}{\underset{4}{I}}$, or $\overset{6}{\underset{4}{i}}$. This Triad is, in

Figs. 31, 32, in *root-position*, and so is the final Triad also. Whenever, then, the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ is in *root-position*, no change is to be made in the Cadence, as the final Triad will necessarily be in the proper position. The two cases when a change is necessary are, 1) when $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ is in *terce-position*, involving that position in the final Triad, as in Figs. 33, 34; and 2) when the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ is in *quint-position*, involving that position in the final Triad also, as in Figs. 29, 30. In either case the change will occur in the *Dominant Triad* $\rightarrow V$; or (V).

51. In the first case, — when the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ is in *terce-position*; the *Soprano* of the V or (V), instead of rising to the degree above (*Third* of the final Triad)—as in Figs. 33, 34, *falls* to the degree below (*root* of the final Triad); the *Alto* is not changed, i. e., it rises one degree, thus *doubling* with the *Soprano*; the *Tenor* will not form, as before, the *connecting-tone* with the final Triad, but instead will, on the second quarter-note of the V or (V), *fall* to the degree below, thereby forming a *Seventh* to the Bass, which *Seventh* also falls to the degree below to form the *Third* in the final Triad. With this change of the Dominant Triad, the Cadence, with the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ in *terce-position*, will appear thus:

35.

C: I IV I V I

36.

a: I IV I (V) I

52. In the second case, — when the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ is in *quint-position*; the *Soprano* of that Triad, instead of remaining, to form, in the V

or the (V), the *connecting-tone* with the final Triad — as in Figs. 29, 30, *rises* to the *Third above*, so as to lead up, by one degree,

to the *root* of the final Triad: the *Alto* of the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ follows the Soprano, rising by a *Third* to the doubling of the Bass of V or the (V), thus forming the connecting-tone with the final Triad: the *Tenor* of

the $\overset{6}{\underset{4}{I}}$ or the $\overset{6}{\underset{4}{I}}$, instead of falling, *rises* to the *degree above* — *Fifth* of the V or (V), to lead up by one degree to the *Third* of the final Triad. With this change of the Dominant Triad the Cadence,

with the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ in *quint-position*, will appear thus:

87.

c: I {IV} I V I —

88.

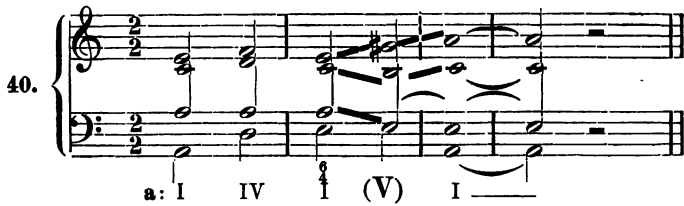
a: I IV $\overset{6}{\underset{4}{I}}$ (V) I —

Or, the *Alto* of the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$, instead of following the Soprano upward, as above, may *fall one degree*, to lead up again by one

degree to the *Third* of the final Triad; and the *Tenor* of the $\overset{6}{\underset{4}{I}}$ or $\overset{6}{\underset{4}{I}}$ instead of rising, as above, may *fall* to the *Fourth below*, which is a doubling of the Bass of the V or (V), and forms the *connecting-tone* with the final Triad. Thus:

39.

c: I {IV} I V I —



REMARK 1. The variations in the progression $\overset{6}{\underset{4}{I}} - V$, or $\overset{6}{\underset{4}{I}} - (V)$, in the Cadence, as exemplified in Figs. 37, 38, 39, 40, form the single exception in our method to the general rule that the progression of a voice is *to the degree next above or below* (see paragraph 33).

REMARK 2. When the three upper voices of a Triad lie so close together that no tone of the Triad can be introduced between any two of the voices, we have CLOSE HARMONY, so called, — as in all our examples previous to Figs. 39, 40, 4th and 5th Triads: otherwise, the harmony is called DISPERSED. In Figs. 39, 40, the Dominant and the following Tonic Triad are in *dispersed harmony*. The cadence-form as in these two figures is specially recommended — for the sake of the greater *sonority* of the Triads concerned — when a modulation lies in a *high register* of the instrument, in which case the effect of the two closing Triads in *close harmony* would be weak and unsatisfactory.

53. It is absolutely necessary that the student should be perfectly at home in the Cadence in every key, major or minor. There may be some difficulty in *connecting the old key with the initial Triad* of the Cadence; but, this Triad once reached, the rest of the Cadence, implying the consummation of the modulation, should follow without the least hesitancy. This facility may be attained by a diligent practice of the following

Exercises.

NB. Play in the *middle* of the instrument, avoiding *too high* a register, for the sake of sonority.

- I. Take the Cadence-formula exemplified in Fig. 31 through all the *major* keys.
- II. Take the Cadence-formula exemplified in Fig. 35 through all the *major* keys.
- III. Take the Cadence-formula exemplified in Fig. 37 through all the *major* keys.

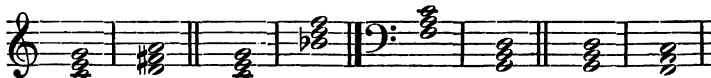
- IV. Take the Cadence-formula exemplified in Fig. 39 through all the *major* keys.
- V. Take the Cadence-formula exemplified in Fig. 32 through all the *minor* keys.
- VI. Take the Cadence-formula exemplified in Fig. 36 through all the *minor* keys.
- VII. Take the Cadence-formula exemplified in Fig. 38 through all the *minor* keys.
- VIII. Take the Cadence-formula exemplified in Fig. 40 through all the *minor* keys.

CHAPTER X.

Relationships of Keys.

54. Just as the various *Triads* of one and the same key are inter-related, some directly, others indirectly, so too there is direct and indirect relationship of *keys*. And as two *Triads* are directly related by having a *tone* or two *tones* in common, so two *keys* are directly related by having — in their *normal* form — at least four *Triads* in common. This relationship of keys underlies the practice of modulation, and must therefore be carefully studied.

55. Two keys are related, directly or remotely; *directly*, when their *Tonic Triads* are directly related, *i. e.*, have a tone, or two tones, in common (implying that the two keys have many common *Triads*); otherwise, more or less *remotely*. If the roots of the two *Tonic Triads* of two keys are on *contiguous degrees* of the scale, thus forming a *Second*, or if they form a *Seventh* — which amounts to the same thing (see *Remark*, p. 9) — as in the following examples;

41. 

C: I D: I C: I B \flat : I F: I G: I G: I F: I

the two *Triads* will not be directly related, neither will the two keys of which they are *Tonics*. There is therefore no *direct* relationship of keys by the *Second*.

But if the *Tonic Triads* of the two keys are *tierce-related Triads* (see paragraph 21), the two keys will be *directly* related — in this case by *tierce-relationship*; if the *Tonic Triads* of two keys are

quint-related Triads, the two keys will be directly related — in this case by *quint-relationship*. Here follow examples.

42.
C: I e: I

The two Triads are tierce-related; the two keys, *C*-major and *e*-minor, are in direct tierce-relationship.

43.
C: I a: I

The two Triads are tierce-related; the two keys, *C*-major and *a*-minor, are in direct tierce-relationship.

44.
C: I F: I

The two Triads are quint-related; the two keys, *C*-major and *F*-major, are in direct quint-relationship.

45.
C: I G: I

The two Triads are quint-related; the two keys, *C*-major and *G*-major, are in direct quint-relationship.

REMARK. Direct relationship between two keys implies, therefore, that they are either tierce-related or quint-related. Conversely, *tierce-relationship* between two keys implies that they are *directly* related: but this is not implied in *every* case of *quint-relationship*, which, as we shall presently see, has its different *grades*.

56. If the Tonic of the second one of two keys is a *Third* ABOVE (Sixth below), or a *major Fifth* ABOVE (minor Fourth below) the Tonic of the first key, the second key is, in the first case, in UPPER *tierce-relationship* to the first key (see Fig. 42); in the second case, in UPPER *quint-relationship* to it (Fig. 45). If the Tonic of the second key is a *Third* BELOW (Sixth above), or a *major Fifth* BELOW (minor Fourth above), the Tonic of the first key, the second key is, in the first case, in LOWER *tierce-relationship* to the first key (Fig. 43); in the second case, in LOWER *quint-relationship* to it (Fig. 44).

57. Two keys, then, are *tierce-related*, when their Tonics form a Third (or a Sixth). This is to be understood in a twofold sense. In the first place, tierce-relationship exists between a *major* key and the *minor* key whose Tonic is a minor Third *below* the Tonic of the major key, and is thus identical with the *Submediant* of the major key*. Two keys thus related are called PARALLEL KEYS; *C*-major — for instance — is the parallel of *a*-minor, and conversely. Two parallel keys always have one and the same *signature* in com-

* The Triad on the Submediant of a major key being *minor*, the key of which this Triad is the Tonic, is of course a minor key.

mon. They have — supposing each key to be in its *normal* form — also the *same Triads* in common, though these are of course differently inter-related in the two keys, on account of the difference of Tonic. Thus, as in the following example,

46.

C: I II III IV V VI VII°

a: I II° III IV V VI VII I II°

the Triad which is II, related to C: I, is IV, related to a: I; Triad IV, related to C: I, is VI, related to a: I, and so on of Triads on other degrees.

58. In the second place; a major key has also *above* it a tierce-related *minor* key, whose Tonic lies a *major* Third *above* the Tonic of the major key, and is identical with the tone on the 3^d degree (Mediant) of the latter key*. Above C-major, for instance, is the key of e-minor, called the *upper relative minor* of C-major, which latter, conversely, is the *lower relative major* of e-minor. The following illustration shows that such a pair of keys has — normally — *four* Triads in common.

47.

e: I II° III IV V IV

C: I II III IV V VI VII° I

59. Tierce-relationship, thus understood, implies therefore, that every *major* key has its *upper relative minor* (as, C-major, e-minor), and conversely, that every *minor* key has its *lower relative major* (as, e-minor, C-major); that every *major* key has its *parallel minor* (as, C-major, a-minor), and conversely, that every *minor* key has its *parallel major* (as, a-minor, C-major); that thus the two keys concerned differ in *mode*; and that the two keys which are *parallel* have *one and the same signature* and the same Triads in common.

60. The other kind of relationship between two keys — *quint-*

* The Mediant Triad of a major key is *minor*; hence the key of which this Triad is *Tonic*, is of course a minor key.

relationship — implies two *different* SIGNATURES and *one and the same* MODE. Every key has an *upper* quint-related key of the same mode, whose Tonic is a *major Fifth* above, and a *lower* quint-related key of the same mode, whose Tonic lies a *major Fifth* below. Thus, *above* the key of *C* is that of *G*, whose Tonic is a Fifth higher; above the key of *G* is that of *D*, again a Fifth higher, etc. *Below* the key of *C* is that of *F*, a Fifth lower; and below the key of *F* is that of *B♭*, also a Fifth lower, etc. In this way the various keys of one and the same mode form a *chain of quint-relationship*, — *upper*, when the Tonic is each time a Fifth higher, and *lower*, when the Tonic is each time a Fifth lower. Each kind of quint-relationship has its several *grades*; two keys of the same mode, whose Tonics are *one* major Fifth distant, are related in the *first grade*, *i. e.*, *directly*, — as, *C* and *G*, *C* and *F*; two keys of the same mode whose Tonics are *two* major Fifths distant are related (indirectly) in the *second grade*, — as, *C* and *D*, *C* and *B♭*, — and so on. Accordingly, in each of the following figures 48 and 49, any key is related in the *first grade* to the key immediately before, in the *second grade* to the *second* key before, in the *third grade* to the *third* before, — and so on, the relationship becoming more and more *remote*. —

NB. Read either of the two following figures in the numerical order of the keys. If we begin with *flats*, we have a chain of keys in *upper* quint-relationship; if with *sharps*, a chain of keys in *lower* quint-relationship.

Chain of major Keys in quint-relationship.

48.

1. 2. 3. 4. 5. 6. 7. 8.
 15. C♭ 14. B♭ 13. A♭ 12. G♭ 11. F♭ 10. E♭ 9. D♭ 8. C♭
 9. G♯ 10. D♯ 11. A♯ 12. E♯ 13. B♯ 14. F♯ 15. C♯

Chain of minor Keys in quint-relationship.

49.

1. 2. 3. 4. 5. 6. 7. 8.
 15. a♭ 14. e♭ 13. b♭ 12. f 11. c 10. g 9. d 8. a
 9. g 10. d 11. a 12. e 13. b 14. f 15. c

61. A differently arranged chain of quint-related keys, called the "Quint-circle", starts from the natural key, passes through the keys with sharps and those with flats, and returns to the natural key, — as in the following examples:

Quint-circle of Major Keys.

50. U

C G D A E B F# C# G \flat D \flat A \flat E \flat B \flat F C

Quint-circle of Minor Keys.

51. U

a e b f# c# g# d# a# b f c g d a

3

EXPLANATION. — Reading from U to W, we have the order of *upper* quint-relationship, each key after the first having an additional sharp in its signature: reading from W to U, the order of *lower* quint-relationship, each key after the first having one sharp less in its signature. Reading from X to Z, we have *upper* quint-

relationship, each key after the first having one flat less in its signature: reading from Z to X, *lower* quint-relationship, each key after the first having one additional flat in its signature. — To make the complete *circle* of *upper* quint-relationship, start at U; arriving at the last key on that line, *change the name* of its Tonic for that of the Tonic of the key with flats, immediately below; then continue to the right, each new key having one flat less, till the natural key is again reached. To make the circle of *lower* quint-relationship, start at Z; arriving at the last key on the line, change the name of its Tonic for that of the Tonic of the key with sharps, immediately above; then continue to the left, each new key having one sharp less, up to the natural key.

NB. The change of the name and notation of a tone (the *sound* remaining the same) is called an ENHARMONIC CHANGE. As the above Figs. 50 and 51 show, the following tones, as Tonics of keys, may be changed thus: B into C♭, F♯ into G♭, C♯ into D♭, g♯ into a♭, d♯ into e♭, a♯ into b♭*. For making the quint-circle, the enharmonic change of Tonic, instead of being deferred till the *last* key on the line (as above suggested), may be made at *any one* of the three places where a key with sharps coincides with one with flats.

Summary of this Chapter.

62. The basis of the direct relationship of two keys is their common possession of a certain number of *Triads*.

63. Two keys are directly related, when, and in the same way as, their *Tonic Triads* are directly related, *i. e.*, by either *terce-relationship* or *quint-relationship*.

64. Two *terce-related* keys are *directly* related; but two *quint-related* keys may be either directly or more or less remotely related.

65. If, in the case of two keys, the Tonic of the second one is a Third or a major Fifth *above* that of the first, the second key is in *upper* *terce-relationship* or *quint-relationship* to the first; if a Third or a major Fifth *below*, the second key is in *lower* *terce-relationship* or *quint-relationship* to the first.

66. Tierce-relationship exists in the following two cases: 1. between a *major* key and the *minor* key whose Tonic is a *minor* Third *below* the Tonic of the major key. Such two keys are called

* Hence, B and C♭ may be called *interchangeable keys*; similarly, F♯ and G♭, C♯ and D♭, g♯ and a♭, etc.

parallels; they have one signature and the same Triads in common. 2. Between a *major* key and the *minor* key whose Tonic is a *major Third above* the Tonic of the major key. This minor key is the *upper relative minor* of the major key, and conversely, the latter is the *lower relative major* of the minor key. Two keys thus related have *four Triads* in common.

67. Tierce-relationship implies therefore that the two keys *differ in mode*; and that *parallel* keys have the same signature and Triads in common.

68. The *quint-relationship* of two keys implies the *same mode* and *different signatures*.

69. Quint-relationship has its *grades*: two keys whose Tonics are *one major Fifth* apart are related in the *first grade*, that is, *directly*; when their Tonics are *two major Fifths* apart, in the *second grade*, etc.

70. A *chain* of quint-related keys is formed 1) in *upper* quint-relationship, by starting from the key with seven flats, up to the natural key, then continuing up to the key with seven sharps: 2) in *lower* quint-relationship, by starting from the key with seven sharps, up to the natural key, then continuing up to the key with seven flats. See Figs. 48, 49.

71. The *Quint-circle* implies a return to the starting-key, which is effected by means of an *Enharmonic change* in the case of the *interchangeable keys*, of which there are three pairs for the Major and three for the Minor Mode. See Figs. 50, 51.

CHAPTER XI.

Relationship of one and the same Triad to several keys.

72. As we shall presently see, the modulation to a *directly related* key involves no special difficulty, for it is immediate; whereas to modulate to any other key we must pass through a key (or keys) having an intermediate relationship. In going, for instance, to a key distant by *two grades* of quint-relationship, we introduce an intermediate third key, directly related to each of the two others; the same principle is applied in going to a more remote key, — there will be a *chain* of intermediate keys, each two in succession being directly related. We have seen that the direct relationship

of two tierce-related or quint-related keys implies that they have certain *Triads in common*. This, then, is what enables a key to mediate, or bridge over the chasm, between two different keys: by means of one of the Triads which it has in common with the first key it connects that key with itself, then reaches out to the other key by another one of its Triads (not possessed by the first key) which it has in common with this other key, — and so on, up to the Cadence. As has been already observed, this linking the old key to the Cadence by intermediate Triads — getting “switched off”, to employ our old figure — is (supposing the student’s perfect familiarity with the practice of the Cadence in any key whatsoever) the only real difficulty in modulation; hence the importance of the present chapter, which treats of the relationship of one and the same Triad to various keys.

73. In Fig. 46 we have seen how two *parallel* keys have all their Triads in common, and in Fig. 47, how a *major* key and its *upper relative minor* have four Triads in common. The following figure shows how *C-major*, for instance, has four Triads in common with its *upper quint-relative*, *G-major*, and its *lower quint-relative*, *F-major*; also, how *a-minor* has four Triads in common with its *upper quint-relative*, *e-minor*, and its *lower quint-relative*, *d-minor*.

52.

The figure displays six staves of musical notation in bass clef, each representing a different key. Each staff contains four triads, indicated by Roman numerals below the notes. The keys and their corresponding triads are as follows:

- G: (one sharp)** IV, VI, I, II
- C: (natural)** I, II, III, IV, V, VI
- F: (one flat)** V, VI, I, III
- e: (one sharp)** VI, I, III, IV
- a: (no sharps or flats)** III, IV, V, VI, VII, I
- d: (one flat)** VII, I, III, V


74. It will be seen that the first and the last Triads in the above figure are common to *all the six keys* there represented. Every other Triad in the figure may also be shown to belong to six different keys. Specifically: every *major* Triad is severally I, IV, V, in three different *major* keys; and III, VI, VII, in three different *minor* keys. Every *minor* Triad is severally I, IV, V, in three different *minor* keys; and II, III, VI, in three different *major* keys.

75. Moreover, every *major* Triad is (V) — major Dominant — of a key in the *Bolder Minor Mode* (see paragraph 16); and every *minor* Triad is (IV) — minor Subdominant — of a key in the *Milder Major Mode* (paragraph 14), — as in the following examples:

53.

76. We may therefore lay down the following general principle as to the relationship of one and the same Triad to various keys: *Every major and every minor Triad has each SEVEN places in as many different keys, major and minor.*

REMARK. The above statement holds good as a general rule. Its application must be limited by the consideration that there are some Triads which could not each have *all* the seven relationships without implying keys that are not in use, as they would require more than seven sharps or flats in the signature. The

Triad  for instance, as I, would imply the major key of G \sharp , with 8 sharps; as IV, that of D \sharp , with 9 sharps; as III, the minor key of e \sharp , with 8 sharps, — etc., — and similarly of certain other Triads.

Exercises.

I. On the following 40 major and minor Triads, comprising all of these two species that are in use.

54.

1. 2. 3. 4. 5. 6. 7. 8. 9.

10. 11. 12. 13. 14. 15. 16.

17. 18. 19. 20. 21. 22. 23. 24.

25. 26. 27. 28. 29. 30. 31. 32.

33. 34. 35. 36. 37. 38. 39. 40.

D: I c: I
A: IV g: IV
G: V f: V
b: III Bb: II
f#: VI Ab: III
g: (V) Eb: VI
e: VII G: (IV)

At each of the above Triads the pupil should state its various relationships. At Nos. 1 and 2, examples are given of the proper method of doing this. Thus: No. 1, *major* Triad, is I in *D*-major, IV in *A*-major, V in *G*-major; III in *b*-minor, VI in *f* \sharp -minor, major Dominant (V) in *g*-minor, and VII in *e*-minor. — No. 2, *minor* Triad, is I in *c*-minor, IV in *g*-minor, v in *f*-minor; II in *Bb*-major, III in *Ab*-major, VI in *Eb*-major, minor Subdominant (IV) in *G*-major. It might be well to have the relationships *written down* by the pupil, in the manner above exemplified under Triads 1 and 2.

NB. The *Remark* immediately before this exercise should not be forgotten.

II. The pupil will strike on the piano, or write down in notation, the Triads expressed by the following formulas:

$\overset{1}{F}$: IV. — $\overset{2}{D}$: V. — $\overset{3}{c}$: III. — $\overset{4}{f\sharp}$: IV. — $\overset{5}{Bb}$: III. — $\overset{6}{Db}$: I. —
 $\overset{7}{G}$: IV. — $\overset{8}{F}$: V. — $\overset{9}{Bb}$: II. — $\overset{10}{f\sharp}$: I. — $\overset{11}{d}$: III. — $\overset{12}{Ab}$: (IV). —
 $\overset{13}{a}$: IV. — $\overset{14}{c\sharp}$: (V). — $\overset{15}{Db}$: III. — $\overset{16}{B}$: V. — $\overset{17}{Eb}$: IV. — $\overset{18}{b}$: (V) —
 $\overset{19}{g}$: (V). — $\overset{20}{c}$: IV. — $\overset{21}{E}$: (IV). — $\overset{22}{Bb}$: IV. — $\overset{23}{bb}$: I. — $\overset{24}{f}$: III. —
 $\overset{25}{Gb}$: IV. — $\overset{26}{F\sharp}$: IV. — $\overset{27}{c\sharp}$: V. — $\overset{28}{d}$: (V). — $\overset{29}{Cb}$: V. — $\overset{30}{C\sharp}$: IV. —

³¹*eb*: I. — ³²*c*: V. — ³³*A*: IV. — ³⁴*Ab*: III. — ³⁵*g*[♯]: (V). — ³⁶*a*: v. — ³⁷*B*: IV. —
³⁸*A*: II. — ³⁹*g*: VI. — ⁴⁰*eb*: (V). — ⁴¹*G*^b: II. — ⁴²*E*: III. — ⁴³*b*: III. —
⁴⁴*c*: (V). — ⁴⁵*eb*: IV. — ⁴⁶*D*^b: (IV). — ⁴⁷*g*[♯]: IV. — ⁴⁸*b*^b: VI. — ⁴⁹*E*^b: VI. —
⁵⁰*f*[♯]: VI. — ⁵¹*F*: VI. — ⁵²*A*: V. — ⁵³*Ab*: VI. — ⁵⁴*D*^b: II. — ⁵⁵*B*^b: (IV). —
⁵⁶*D*: VI. — ⁵⁷*e*: VI. — ⁵⁸*F*[♯]: (IV). — ⁵⁹*C*: II. — ⁶⁰*g*: IV. — ⁶¹*ab*: (V). —
⁶²*C*[♯]: (IV). — ⁶³*b*^b: IV. — ⁶⁴*e*: IV. — ⁶⁵*C*^b: III. — ⁶⁶*C*[♯]: V. — ⁶⁷*d*[♯]: (V). —
⁶⁸*G*^b: VI. — ⁶⁹*c*[♯]: IV. — ⁷⁰*D*: (IV). — ⁷¹*b*^b: (V). — ⁷²*D*^b: V. — ⁷³*F*: III. —
⁷⁴*ab*: IV. — ⁷⁵*D*: II. — ⁷⁶*g*[♯]: I. — ⁷⁷*F*: (IV). — ⁷⁸*b*^b: v. — ⁷⁹*f*: (V). —
⁸⁰*E*^b: V. — ⁸¹*g*[♯]: VI. — ⁸²*C*^b: I. — ⁸³*G*: III. — ⁸⁴*f*[♯]: (V). — ⁸⁵*g*: III. —
⁸⁶*C*^b: IV. — ⁸⁷*G*: (IV). — ⁸⁸*a*: VII. — ⁸⁹*G*: II. — ⁹⁰*D*^b: VI. — ⁹¹*a*: VI. —
⁹²*eb*: VI. — ⁹³*E*: VI. — ⁹⁴*B*: VI. — ⁹⁵*E*^b: (IV). — ⁹⁶*f*[♯]: III. — ⁹⁷*d*: I. —
⁹⁸*C*: (IV). — ⁹⁹*F*[♯]: III. — ¹⁰⁰*C*[♯]: I. — ¹⁰¹*a*: III. — ¹⁰²*A*: III. — ¹⁰³*E*^b: III. —
¹⁰⁴*C*: III. — ¹⁰⁵*c*: III. — ¹⁰⁶*G*^b: (IV). — ¹⁰⁷*d*: VI. — ¹⁰⁸*a*: (V). — ¹⁰⁹*c*[♯]: I. —
¹¹⁰*ab*: I. — ¹¹¹*F*[♯]: V. — ¹¹²*G*: V. — ¹¹³*c*: VI. — ¹¹⁴*f*: I. — ¹¹⁵*f*[♯]: v. — ¹¹⁶*Ab*: IV.
— ¹¹⁷*D*^b: IV. — ¹¹⁸*F*[♯]: I. — ¹¹⁹*E*: V. — ¹²⁰*B*^b: V. — ¹²¹*Ab*: V. — ¹²²*ab*: v. —
¹²³*d*: IV. — ¹²⁴*f*: IV. — ¹²⁵*G*^b: V. — ¹²⁶*C*[♯]: II. — ¹²⁷*d*[♯]: IV. — ¹²⁸*B*^b: VI. —
¹²⁹*ab*: VI. — ¹³⁰*D*: IV. — ¹³¹*f*: VI. — ¹³²*b*: I. — ¹³³*eb*: III. — ¹³⁴*C*^b: VI. —
¹³⁵*g*: v. — ¹³⁶*f*[♯]: VII. — ¹³⁷*Ab*: II. — ¹³⁸*B*: (IV). — ¹³⁹*G*: VI. — ¹⁴⁰*C*^b: V. —
¹⁴¹*c*: VII. — ¹⁴²*e*: I. — ¹⁴³*g*[♯]: VII. — ¹⁴⁴*C*^b: (IV). — ¹⁴⁵*eb*: VII. — ¹⁴⁶*a*[♯]: I. —

CHAPTER XII.

Classification of Modulations.

77. In modulating we shall follow a certain systematic order. In the first place, we classify the modulations according to the *mode* or *modes* involved, and get *four grand divisions*: 1. Modulations from *major* keys to others of the *same mode* (Major to

Major); 2. Modulations from *minor* keys to others of the same mode (Minor to Minor); 3. Modulations from *major* to *minor* keys (Major to Minor); 4. Modulations from *minor* to *major* keys (Minor to Major).

78. A modulation belonging to the 1st or 2^d division we will call *homo-modal*, as involving *one and the same mode* (major or minor, as the case may be) in both keys: a modulation of the 3^d or the 4th division we will call *hetero-modal*, as implying a *difference of mode*, a change of the mode in going to the new key.

79. In the second place, each of the four grand divisions falls into *two subdivisions*, with reference to the *signatures* of the keys concerned: 1. the transition to a key with *more signs of raising* (\sharp or \natural), or *fewer of depression* (\flat or \natural); and this process we will call **ELEVATION**: 2. the transition to a key with *more signs of depression*, or *fewer of raising*, — which we will call **DEPRESSION**. Here follow examples of each:

55. C: ^{1.} to G: — a: ^{2.} to B \flat : — A: ^{3.} to C: — G: ^{4.} to g \sharp : — g \sharp to G: ^{5.} — D: ^{6.} to E \flat : — e \flat : ^{7.} to a: — C \flat : ^{8.} — F: ^{9.} — F to C \flat : ^{10.} — A \flat : to A:

In the above figure, Modulation 1 — C to G — implies *one grade of elevation*, the latter key having one more sign of *raising* (\sharp). — Mod. 2 — a to B \flat — implies *two grades of depression*, the latter key having two more signs of depression (\flat). — Mod. 3 — A to C — implies *three grades of depression*, as there are *three sharps to be cancelled* (the cancelling of sharps is *depression*, just as the cancelling of flats is *elevation*). — Mod. 4 — G to g \sharp — is *elevation by four grades*, the latter key having *four sharps more*. — Mod. 5 — g \sharp to G — is *depression by four grades*, the latter key having *four sharps fewer*. — Mod. 6 — D to E \flat — is *depression by five grades*, the cancelling of the two sharps counting as two de-

pressions, and the three flats of the 2^d key making the sum five. — Mod. 7 — *e♭* to *a* — is *elevation* by *six* grades, there being six flats to be cancelled. — Mod. 8 — *C♭* to *F* — is also, for the same reason, *elevation* by *six* grades. — Mod. 9 — *F* to *C♭* — is *depression* by *six* grades, as six flats are to be added. — Finally, Mod. 10 — *A♭* to *A* — is *elevation* by *seven* grades, the cancelling of the four flats counting as four raisings, to be added to the three raisings (by sharps) in the second key.

80. The processes of modulation — with the single exception of the transition from a key to its *parallel* (see Par. 57) — can therefore be stated thus, in general terms:

- a) From either *natural* key (*C*-major or *a*-minor) to a key of either mode with *sharp* signature, is *Elevation*, by as many grades as there are *sharps* in that signature.
- b) From either natural key to a key of either mode with *flat* signature, is *Depression*, by as many grades as there are *flats* in that signature.
- c) From a key of either mode with *sharp* signature to either *natural* key, is *Depression*, by as many grades as there are *sharps* to be cancelled.
- d) From a key of either mode with *sharp* signature to another with *sharp* signature, is either *Elevation*, — by as many grades as the 2^d key has *more* sharps; or *Depression*, — by as many grades as the 2^d key has *fewer* sharps.
- e) From a key of either mode with *sharp* signature to another with *flat* signature, is *Depression*, by as many grades as are indicated by the *sum of the sharps* (to be cancelled) and the *flats* (to be added).
- f) From a key of either mode with *flat* signature to either *natural* key, is *Elevation*, by as many grades as there are *flats* to be cancelled.
- g) From a key of either mode with *flat* signature to another with *flat* signature, is either *Elevation*, — by as many grades as the 2^d key has *fewer* flats; or *Depression*, — by as many grades as the 2^d key has *more* flats.
- h) Lastly, from a key of either mode with *flat* signature to another with *sharp* signature, is *Elevation*, by as many grades as are indicated by the *sum of the flats* (to be cancelled) and the *sharps* (to be added).

81. In the third and last place, we shall classify the modulations according to the *relationships of keys*. This applies, of course, only to the 1st and 2^d grand divisions, in which alone such relationship exists (excepting the two cases of *terce-relationship* — mentioned in paragraphs 57, 58 — which belong to the 3^d and 4th divisions). The modulations, therefore, of the 1st and 2^d divisions will follow each other in the order of the successive grades of *quint-relationship* of the keys, — first, *upper* quint-relationship, implying *elevation*, then *lower*, implying *depression*, — and so on, alternately. In the 3^d and 4th divisions there is no quint-relationship of keys, hence the modulations here are ranged according to the successive grades of Elevation and Depression, exclusively, the latter alternating with the former, as before.

CHAPTER XIII.

Chains of quint-related major Triads, as preparatory to the modulations of the first division.

82. In forming *chains* of *quint-related* Triads, in Chapters VII and VIII, we confined ourselves to harmonies of *one key* — either *C*, or *a*, implying *major and minor Triads mingled*. Now, however, that we are preparing to *modulate*, our chain of harmonies must be such as can *lead us away* from our starting-key, and for this purpose, as we propose to begin with *quint-related major keys*, our best method will be to use (at least, for the present) chains of *quint-related major Triads*. The reason of this will appear immediately.

83. To modulate from *C* — for instance — to its nearest quint-relative, is to go either to *G* (Fifth above), by one grade of *Elevation*, or to *F* (Fifth below), by one grade of *Depression*. Now, in the key of *C*, *G* is *V*, and *F* is *IV*; hence the modulation here is either from a key to that of its *Dominant* — *C* to *G*; or, from a key to that of its *Subdominant* — *C* to *F*. In the former case, *G*, which in the key of *C* was *V*, now becomes *Tonic*, or *I*: in the latter case, *F*, which in *C* was *IV*, now becomes *I*. This change of *V* into *I*, or *IV*

into I, we express by placing I *after* V, or IV, thus: $\underline{V:I}$, $\underline{IV:I}$, — the dots serving to prevent confusion, and the bracket indicating — here and whenever else throughout this work it is placed *under* two different numerals — *one and the same Triad* (as to its tones), *differently related to two keys*, as above explained.

84. If now we wish to go to a key distant by *two* grades of *upper* quint-relationship — as, from *C* to *D*, the modulation is by *Elevation*, in the *direction* of the DOMINANT, because we use the Dominant Triad as intermediary chord, — we consider it for the time being as *Tonic*, or I, to be in its turn followed by *its Dominant* — V, viz: $\overset{a}{\underset{d}{G}}^{\sharp}$, which then drops its Dominant character and in its turn becomes I, in the new key of *D*, thus:

56.

$\underline{C} \quad \underline{G} \quad \underline{D}$
 $\underline{I} \quad \underline{V:I} \quad \underline{V:I}$

85. Again: to go to a key distant by two grades of *lower* quint-relationship — as, from *C* to *B \flat* , — is a modulation by *Depression*, in the *direction* of the SUBDOMINANT, because this Triad serves as intermediary chord, — first as IV in regard to *C*, then as I in *F*, to be followed by *its* Subdominant, the Triad $\overset{f}{\underset{b\flat}{B}}$, which, being the Tonic Triad of the new key (*B \flat*), in its turn becomes I. Thus.

57.

$\underline{C} \quad \underline{F} \quad \underline{B\flat}$
 $\underline{I} \quad \underline{IV:I} \quad \underline{IV:I}$

As long, therefore, as our method of modulation requires us to pass through the Tonic, Dominant and Subdominant Triads of keys, it is clear that the chain of harmonies must, for the *Major Mode*, consist, up to a certain point, of *major* Triads, connected by *quint-relationship*.

86. It should, then, be well understood, that in modulating among *quint-related* keys, all *Elevation* is in the *direction* of the *Dominant*, all *Depression* is in the *direction* of the *Subdominant*; and that in the former case the *first link* in the chain of major Triads will be the progression from I to V, in the old key; while in the latter case the first link will be the progression from I to IV, in the old key.

87. It will be indispensable to practise, as a preparatory exercise, the connection of links of I V, and of I IV, forming the harmonic chains about to follow, which, however, are not to be mistaken for *modulations*, properly so called, since the *Cadence* is wanting to them.

NB. 1. All the Exercises which follow are supposed to be in $\frac{3}{2}$ meter, and every *single* numeral — as, I, V, (IV), I, etc., — or every *pair* of numerals grouped thus: $\underline{V:I}$, $\underline{I:IV}$, etc. — or thus: $\left\{ \begin{smallmatrix} IV \\ (IV) \end{smallmatrix} \right.$, represents rithmically the value of *one half-note*, invariably. A numeral filling the measure, as indicated by a dash after it, — for instance, | I — |, of course represents rithmically a *whole note*. Sometimes an exercise *ends* with but *one* numeral, immediately followed by the double-bar; this means of course a half-note, the other part of the measure being the half-note with which the exercise *begins* (see examples in Figs. 58, 60, etc.).

2. A certain *order of keys* should, generally, be observed in the Exercises. In *Elevation*, begin with the key with *most flats*; these are cancelled one by one, up to the natural key, from which, pass to the keys with *sharp* signature, ending in the key with *most sharps*. In *Depression*, begin with the key with *most sharps*; these are cancelled one by one, up to the natural key, thence pass to the keys with *flat* signature, closing in the key with *most flats* (see Figs. 48, 49, where reading from *left to right* is the order of *Elevation*; contrariwise, the order of *Depression*).

Exercises.

I. Chain of I V, V constantly changing to I. (*Tonic to Dominant*)

I | $\underline{V:I}$ $\underline{V:I}$ | $\underline{V:I}$ $\underline{V:I}$ | $\underline{V:I}$ $\underline{V:I}$ | V ||

The following is an illustration of the above chain, starting from the key of C \flat . The initial Triad is here in *root-position*, but any other position will be equally good.

58.

C \flat — G \flat — D \flat — A \flat — E \flat — B \flat — F —
 I — V:I — V:I — V:I — V:I — V:I — V:I — V

The same formula should be taken through the other major keys, G \flat , D \flat , and so on, as already indicated. Each time vary the *position* of the initial Triad.

NB. In working out the above chain in keys with *sharp* signature, from D on, an *enharmonic change* will be necessary. We know that the major key of G \sharp , as such, is not used, as also that of D \sharp , — A \flat being substituted for the former, E \flat for the latter. Now, in beginning the chain of I V with D:I, or with A:I, E:I, etc., the major Triad on G \sharp would appear as I, implying the major key of G \sharp . This Triad must therefore be enharmonically changed, on its second quarter-note, into the major Triad on A \flat , as I, to be followed by that on E \flat as V, and continuing, when necessary, in keys with *flat* signature, as for example:

59.

F \sharp — C \sharp — G \sharp — A \flat —
 V:I — V:I — V:I — V

II. Chain of V I, I constantly changing to V. (Dominant to Tonic).

$$V \mid \underline{I:V} \mid \underline{I:V} \mid \underline{I:V} \mid \underline{I:V} \mid \underline{I:V} \mid \underline{I:V} \mid I \parallel$$

The above *inversion* of the first chain should be taken through all the major keys, beginning with *most sharps*. The pupil is cautioned against the mistake of beginning the chain with the *Tonic* (instead of the *Dominant*) Triad of a key. An illustration of this chain here follows; next in order would be the chain beginning with F \sharp :V — and so on.

60.

$\text{C}\sharp \quad \text{F}\sharp \quad \text{B} \quad \text{E} \quad \text{A} \quad \text{D} \quad \text{G}$
 $\text{V} \quad \text{I:V} \quad \text{I:V} \quad \text{I:V} \quad \text{I:V} \quad \text{I:V} \quad \text{I:V} \quad \text{I}$

NB. In taking the above chain through the keys with *flat* signature, beginning with the key of $B\flat$, the major Triad on $C\flat$ would appear as V, implying the key of $F\flat$, which is not used, as such, the key of E being used instead. In this case the major Triad on $C\flat$ must be enharmonically changed, on its second quarter-note, into that on B , as V, to be followed by that on E , as I, and continuing, when necessary, in keys with *sharps*. Thus:

61.

$\text{G}\flat \quad \text{C}\flat \quad \text{F}\flat \quad \text{E}$
 $\text{I:V} \quad \text{I:V} \quad \text{I:V} \quad \text{I}$

III. Chain of I IV, IV constantly changing to I. (Tonic to Subdominant.)

$$\text{I} \mid \text{IV:I} \text{ IV:I} \mid \text{IV:I} \text{ IV:I} \mid \text{IV:I} \text{ IV:I} \mid \text{IV} \parallel$$

The above Chain should be taken through the different major keys, beginning — as in the case of the previous Chain — with *most sharps*. Thus:

62.

$\text{C}\sharp \quad \text{F}\sharp \quad \text{B} \quad \text{E} \quad \text{A} \quad \text{D} \quad \text{G}$
 $\text{I} \quad \text{IV:I} \quad \text{IV:I} \quad \text{IV:I} \quad \text{IV:I} \quad \text{IV:I} \quad \text{IV:I} \quad \text{IV}$

NB. In taking the above chain through the keys with *flat* signature, beginning with $B\flat$, the major Triad on $F\flat$ would appear as I, which, as we have seen, is contrary to usage. In this case, we enharmonically change this Triad into the major Triad on E , as I, continuing, when necessary, in keys with *sharp* signature. For example:

63.



IV: $G\flat$ IV: $C\flat$ — IV: $F\flat E$ — IV

IV. Chain of IV I, I constantly changing to IV. (*Subdominant to Tonic.*)

IV | I:IV I:IV | I:IV I:IV | I:IV I:IV, I ||

The above chain should be taken through the different major keys, beginning with *most flats*. Thus:

64.



$C\flat$ — $G\flat$ — $D\flat$ — $A\flat$ — $E\flat$ — $B\flat$ — F —
IV I:IV I:IV I:IV I:IV I:IV I:IV I

NB. In taking the above chain through keys with *sharp* signature, beginning with D , the major Triad on $C\sharp$ would appear as IV, implying the major key of $G\sharp$, not in use. This Triad is therefore enharmonically changed into the major Triad on $D\flat$, as IV, followed by that on $A\flat$, as I, and continuing, when necessary, in keys with *flats*. For example:

65.



$F\sharp$ — $C\sharp$ — $G\sharp$ — $A\flat$ —
I:IV I:IV I:IV I I

V. The last one of the preceding four chains — IV I (Subdominant to Tonic) — is the same, as to its mode of progression, as the first — I V (Tonic to Dominant), the root-bass in each case moving to the major Fifth above or the minor Fourth below. The principle involved is this: the progression IV to I in one key is absolutely the same, as to the Triads concerned, as the progression I to V in the quint-related key *one grade lower*, as for instance:

66.

C: IV I F: I V

The student should *write out* — starting each time from a new key (following the order of *Elevation*) — several chains of the above kind, combining double relationship of each one of its Triads — as in the following example:

67.

C — G_b — D_b — A_b — E_b — B_b — F —
I — V: I — V: I — V: I — V: I — V: I — V: I — V
G_b — D_b — A_b — E_b — B_b — F — C —
IV — I: IV — I: IV — I: IV — I: IV — I: IV — I: IV — I

VI. On the principle (the converse of the preceding one), that the progression V to I (Dominant to Tonic) in one key is the same, as to the Triads concerned, as the progression I to IV (Tonic to Subdominant) in the quint-related key *one grade higher* — for instance:

68.

C: V I G: I IV

the second chain — V I — is identical, as to its mode of progression, with the third — I IV, the root-bass in each case moving to the major Fifth below or the minor Fourth above. The student should write out — starting each time from a new key (following the order of *Depression*) — various chains like that just described, combining double key-relationship of each of its Triads, after the following example:

69.

$$\begin{array}{ccccccc} \text{F\#} & \text{B} & \text{E} & \text{A} & \text{D} & \text{G} & \text{C} \\ \text{V} & \text{I:V} & \text{I:V} & \text{I:V} & \text{I:V} & \text{I:V} & \text{I} \\ \text{C\#} & \text{F\#} & \text{B} & \text{E} & \text{A} & \text{D} & \text{G} \\ \text{I} & \text{IV:I} & \text{IV:I} & \text{IV:I} & \text{IV:I} & \text{IV:I} & \text{IV} \end{array}$$

NB. The various cases in which the *enharmonic change* will be necessary are here summarized, for the sake of facility of memorizing or of reference.

- a) The Triad $\begin{smallmatrix} d\# \\ b\# \\ g\# \end{smallmatrix}$, { appearing as $G\#:I$, changes to $A\flat:I$, } as in Fig. 70
 { appearing as $D\#:IV$, changes to $E\flat:IV$, } at a.
- b) The Triad $\begin{smallmatrix} g\flat \\ e\flat \\ c\flat \end{smallmatrix}$, appearing as $F\flat:V$, changes to $E:V$, as at b.
- c) The Triad $\begin{smallmatrix} c\flat \\ a\flat \\ f\flat \end{smallmatrix}$, { appearing as $F\flat:I$, changes to $E:I$, } as at c.
 { appearing as $B\flat\flat:V$, changes to $A:V$, }
- d) The Triad $\begin{smallmatrix} g\# \\ e\# \\ c\# \end{smallmatrix}$, appearing as $G\#:IV$, changes to $A\flat:IV$, as at d.

70.

$$\begin{array}{cc} \text{a)} & \text{b)} \\ \text{G\#} & \text{F\flat} & \text{E} \\ \text{I} & \text{V} & \text{V} \\ \text{D\#} & & \\ \text{IV} & & \end{array}$$

CHAPTER XIV.

Application of the principles laid down in Chapter XI.

88. Before proceeding to the practice of modulation, we give in the present chapter a comprehensive Table showing the identity of major and minor Triads in *different keys*. This chapter is in fact a specific application of Chapter XI, and is inserted here, immediately before setting about modulation, as a summary — for the sake of reference — of the general principles on which the modulations are severally based. The enunciation of each of these principles is accompanied by its symbolical *expression* in the peculiar formula of identity adopted for this work, viz: two numerals (representing two relationships of one and the same Triad) connected with a horizontal brace. The *vertical* brace connecting two keys indicates that these keys are *parallels*.

TABLE I.

The same Triad in seven different keys.

A.

- | | | | | | | | | |
|----|---|----------------|----------------|----|--------|-----|--------------------------|-------------|
| 1. | I | of a major key | coincides with | IV | of the | { | major key 1 grade above. | <u>I:IV</u> |
| 2. | " | " | " | " | " | VI | " | " |
| 3. | " | " | " | " | " | V | " | " |
| 4. | " | " | " | " | " | III | " | " |
| 5. | " | " | " | " | " | (V) | " | " |
| 6. | " | " | " | " | " | VII | " | " |
- { minor " " " " I:VI
 { major " " " below. I:V
 { parallel minor key . . I:III
 { minor key 4 grades below. I:(V)
 { " " 1 grade " I:VII

B.

- | | | | | | | | | |
|----|----|----------------|----------------|-----|--------|------|---------------------------|---------------|
| 1. | II | of a major key | coincides with | III | of the | { | major key 2 grades below. | <u>II:III</u> |
| 2. | " | " | " | " | " | V | " | " |
| 3. | " | " | " | " | " | (IV) | " | " |
| 4. | " | " | " | " | " | VI | " | " |
| 5. | " | " | " | " | " | I | " | " |
| 6. | " | " | " | " | " | IV | " | " |
- { minor " " " " II:V
 { major " 3 " above. II:(IV)
 { major " 1 grade below. II:VI
 { minor " " " " II:I
 { parallel minor key . . II:IV

- D.**

- E.**

- F.**

- 4***

G.

1. VI of a major key coincides with II of the { major key 1 grade above. VI:II
2. " " " " " " " " IV " " { minor " " " " VI:IV
3. " " " " " " " " (IV) " " major " 4 grades " VI:(IV)
4. " " " " " " " " III " " { " " 1 grade below. VI:III
5. " " " " " " " " V " " { minor " " " " VI:V
6. " " " " " " " " I " " parallel minor key . . VI:I

H.

1. I of a minor key coincides with IV of the { minor key 1 grade above. I:IV
2. " " " " " " " " II " " { major " " " " I:II
3. " " " " " " " " V " " { minor " 1 grade below. I:V
4. " " " " " " " " III " " { major " " " " I:III
5. " " " " " " " " (IV) " " major " 4 grades above. I:(IV)
6. " " " " " " " " VI " " parallel major key . . . I:VI

I.

1. III of a minor key coincides with (V) of the minor key 4 grades below. III:(V)
2. " " " " " " " " VI " " { " " 1 grade above. III:VI
3. " " " " " " " " IV " " { major " " " " III:IV
4. " " " " " " " " VII " " minor " " " below. III:VII
5. " " " " " " " " I " " parallel major key . . III:I
6. " " " " " " " " V " " major key 1 grade below. III:V

J.

1. IV of a minor key coincides with I of the { minor key 1 grade below. IV:I
2. " " " " " " " " VI " " { major " " " " IV:VI
3. " " " " " " " " V " " { minor " 2 grades " IV:V
4. " " " " " " " " III " " { major " " " " IV:III
5. " " " " " " " " II " " parallel major key . . IV:II
6. " " " " " " " " (IV) " " same key in the Major Mode. IV:(IV)

K.

1. V of a minor key coincides with I of the { minor key 1 grade above. $\underline{\underline{V:I}}$
2. " " " " " " " VI " " { major " " " " $\underline{\underline{V:VI}}$
3. " " " " " " " IV " " { minor " 2 grades " $\underline{\underline{V:IV}}$
4. " " " " " " " II " " { major " " " " $\underline{\underline{V:II}}$
5. " " " " " " " III " " parallel major key . . . $\underline{\underline{V:III}}$
6. " " " " " " " (IV) " " major key 5 grades above. $\underline{\underline{V:(IV)}}$

L.

1. (V) of a minor key coincides with III of the { minor key 4 grades above (V):III
2. " " " " " " " I " " { major " " " " $\underline{\underline{(V):I}}$
3. " " " " " " " VI " " minor key 5 " " $\underline{\underline{(V):VI}}$
4. " " " " " " " VII " " " " 3 " " $\underline{\underline{(V):VII}}$
5. " " " " " " " IV " " major key 5 " " $\underline{\underline{(V):IV}}$
6. " " " " " " " V " " same key in the Major Mode $\underline{\underline{(V):V}}$

M.

1. VI of a minor key coincides with III of the { minor key 1 grade below. $\underline{\underline{VI:III}}$
2. " " " " " " " I " " { major " " " " $\underline{\underline{VI:I}}$
3. " " " " " " " (V) " " minor " 5 grades " $\underline{\underline{VI:(V)}}$
4. " " " " " " " VII " " " " 2 " " $\underline{\underline{VI:VII}}$
5. " " " " " " " IV " " parallel major key . . $\underline{\underline{VI:IV}}$
6. " " " " " " " V " " major key 2 grades below. $\underline{\underline{VI:V}}$

N.

1. VII of a minor key coincides with III of the minor key 1 grade above. $\underline{\underline{VII:III}}$
2. " " " " " " " (V) " " " " 3 grades below. $\underline{\underline{VII:(V)}}$
3. " " " " " " " VI " " " " 2 " above. $\underline{\underline{VII:VI}}$
4. " " " " " " " I " " major " 1 grade above. $\underline{\underline{VII:I}}$
5. " " " " " " " IV " " " " 2 grades " $\underline{\underline{VII:IV}}$
6. " " " " " " " V " " parallel major key . . $\underline{\underline{VII:V}}$

CHAPTER XV.

Modulation, in the Major mode, to keys in the 1st grade of quint-relationship.

89. We will now attempt modulation, confining ourselves at first to *major* keys (the modulations of the first grand division), and in this particular chapter to major keys distant *one grade* of quint-relationship.

90. The first step is, to settle *from which key to which key we are going*: this of course determines the *Cadence* as being in the new key. Now, our modulation, once chosen, will be *in the direction* either of the *DOMINANT* — in which case the *first link* of the chain is *I V*, or of the *SUBDOMINANT* — when the first link is *I IV*. If the 2^d Triad — *V*, or *IV* — of this first link happens to be the very same Triad which is *I*, or *IV*, of the *Cadence*, we are already “switched off”, and have only to finish the *Cadence*, leading into the new key. But in most cases we shall need more than one link to reach the *Cadence*: at any rate, whenever a second or a third link brings us to a Triad identical with *I* or *IV* of the *Cadence*, we must not add another link, but follow the *Cadence-formula* into the new key.

91. Our *first* modulation is to a key *one grade higher* (Elevation, direction of the *Dominant*), — as, from *C* to *G*.

The *Cadence* for the new key — *G* — will begin thus:

71.  etc.

G:I IV I V

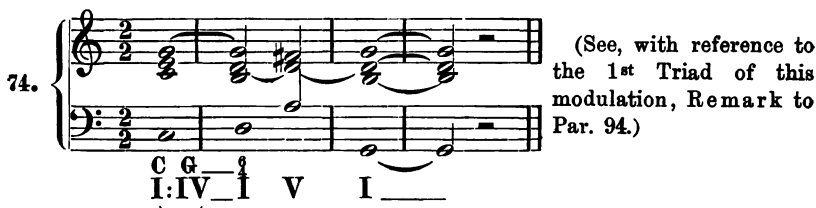
The *first link* in the modulation will consist of the Triads *I* (Tonic) and *V* (Dominant) of the old key, here *C*.



But this second Triad — V — is identical (see Table I,* F, 1) with the *initial Triad* of the *Cadence for the new key* (Fig. 71); so being now “switched off” from the old key we follow the Cadence into the new key. This modulation will read thus, the Tonic Triad in the link being made a whole-note, and the close of the Cadence being so arranged that the whole forms a rhythm of four measures.



Or, in this modulation, we may apply the general principle (Table I, A, 1) that the *Tonic Triad* of a key is identical with the *Subdominant Triad* of the key *one grade higher*. Omitting therefore — for this particular case — the link I V, we regard the Tonic of the old key as identical with the Subdominant Triad of the new key, and *initiate the Cadence* with this Subdominant Triad (as we shall often have occasion to do, omitting the initial *Tonic Triad*). In the following example of this modulation the duration of the final Tonic Triad is extended, so as to form a rhythm of four measures.



92. Our *second* modulation is to a key *one grade lower* (Depression, direction of the *Subdominant*), — as, from C to F.

* This Table, to which frequent reference will be made throughout the modulations, is found, it will be remembered, in Chapter XIV.

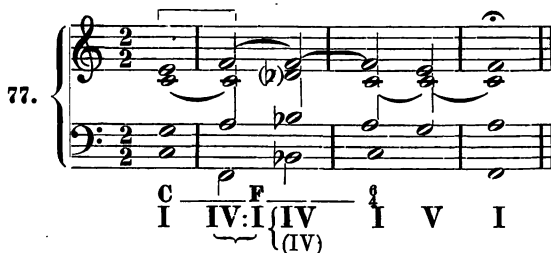
The Cadence for *F* begins thus:



The first link in the modulation is I IV of the old key, thus:



and since the second Triad — IV — is identical (Table I, D, 1) with the initial Triad of the Cadence (Fig. 75), we regard it now as I of the new key, initiating the Cadence, which latter we finish as usual, making the first Triad — I — of the link a whole-note. Thus:



REMARK. The principle of the above modulation, viz: that IV of a key coincides with I of the key one grade lower, is, it will be noticed, merely the converse of the principle underlying Modulation 1, — *i. e.* that I of a key coincides with IV of the key one grade higher.

93. The exercise now in order is the practice of these first two modulations in the other major keys, following the order of keys given in Fig. 48, reading from left to right for Elevation, and from right to left for Depression. Thus, in Modulation 1, from *C_♮* to *G_♭*, then *G_♭* to *D_♭*, — and so on: in Modulation 2, from *C_♯* to *F_♯*, then *F_♯* to *B*, — and so on. Be it said here, once for all, that every one of the modulations to follow is to be taken through the various keys in the same order of Elevation or of Depression,

as the case may be. For the purpose of this practice our modulation-formulas, each one numbered and accurately described, are grouped and classified at the end of this work (Table II). The particular formulas to be practised in connection with this chapter are those of Modulation 1 and Modulation 2. In every modulation having more than one formula, use, for the present, only the *first* one given, marked A.

CHAPTER XVI.

Modulations, in the Major Mode, to keys in the 2^d and 3^d grades of quint-relationship.

94. Our third modulation is to a key *two grades above*, — as, from *C* to *D*. It is based on the principle (Table I, F, 3), that the *Dominant Triad* of a key coincides with the *Subdominant Triad* of the key *two grades higher*. Accordingly, the first link being I V, with the 2^d Triad — V — of the link we at once touch the *Subdominant Triad* of the new key, and have only to go on and finish the Cadence. Thus:

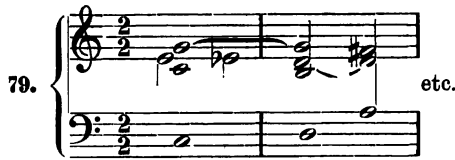
78.

C — D — $\frac{3}{4}$

I — V:IV — I V I

REMARK. As we have already seen, the explicit sign that the Subdominant Triad in the Cadence may be either major or minor, at pleasure, is this: $\frac{3}{4}$ IV — as, for example, in Mod. 2, Fig. 77.

In general, the Subdominant Triad immediately preceding the $\frac{3}{4}$, even when expressed only by IV, may, *after entering as major Triad*, be changed at pleasure into minor by lowering its Third on the note equal to *half the value* of the Triad. Thus, for instance, in Mod. 1, Fig. 74, —



and in Mod. 3, Fig. 78.



95. Our *fourth* modulation is to a key *two grades below*, — as, from *C* to *B \flat* . Principle, as in Mod. 2. The first link is *I IV*; this *IV*, not reaching far enough, is in its turn regarded as *I* and followed by its *IV*, which coincides with the Tonic of the new key and initiates the Cadence. Thus:



96. Our *fifth* modulation is to a key *three grades higher*, — as, from *C* to *A*. The first link is *I V*, the 2^d Triad of which not being identical with either the Tonic or the Subdominant Triad of the new key, we must go on till we reach a Triad that is. We therefore regard this 2^d Triad as *Tonic* — *G*:*I*, followed by its *Dominant*, which latter, as coinciding with the *Subdominant* Triad of the new key — *A*, initiates the Cadence. Thus:



97. Our *sixth* modulation is to a key *three* grades *lower*, — as, from *C* to *E_b*. First link, *I IV*, the 2^d Triad of which does not coincide with either the Tonic or the Subdominant Triad of the new key. We therefore regard this 2^d Triad as Tonic — *F:I*, followed by its Subdominant. This latter Triad, not yet reaching far enough for our purpose, is in its turn regarded as Tonic — *B_b:I*, followed by its Subdominant, which latter, at length, we find identical with the Tonic Triad of the new key, wherewith the Cadence is initiated. Thus:

83.

C — F — B_b — E_b — I V I
I — IV:I — IV:I — IV:I — (IV)

98. The examples thus far given sufficiently illustrate the method to be followed (for the present) in the remaining modulations of the 1st Division. The process may be summed up in a few words. — 1. In *Elevation*, the first link is *I V*, and the 2^d Triad of this link is followed by one *upper* quint-related major Triad after another, till the SUBDOMINANT Triad of the new key is reached: this Triad initiates the *Cadence*, which should then be finished. — 2. In *Depression*, the first link is *I IV*, and its 2^d Triad is followed by one *lower* quint-related major Triad after another, till the TONIC Triad of the new key — and with it the *beginning of the Cadence* — is reached. The Cadence is then to be finished.

REMARK. From the fact that in the regular* formulas for DEPRESSION the Cadence is always initiated with the TONIC Triad, and in those for ELEVATION with the SUBDOMINANT, it follows that Depression is a *longer process* than Elevation. In fact, every one of our *regular* formulas for Depression shows *two Triads* more than the formula for Elevation by the same number of grades. This Remark applies equally to the regular modulations of the 2^d Division.

99. As a test-exercise, the pupil should now endeavor to *apply the principles* of modulation, as far as explained, and work out, at

* The *regular* formulas are those marked A, in the Table of Formulas, in distinction to *Variants*, *Short cuts*, etc.

the piano, the first six modulations *without looking at the formulas*. For, the aim of this work is, not merely to give a table of universal formulas for modulation (thereby dispensing with the immense number of examples which musical notation would involve) — the purely mechanical rendering of which formulas would constitute the first stage of advancement, — but, chiefly, to educate the student in the *theory and principles* of modulation, up to the point that he may be able to work out by himself a given modulation without looking at the formula — in a word, to *extemporize* a modulation.

100. The preliminary steps in this exercise are two: 1. Determination of *keys*. From what key to what key is the modulation? (At first, it might be necessary to write down in notes the *Cadence* for the new key, keeping it in sight, for reference.) — 2. Determination of the *direction* of the modulation. Is it towards the *Dominant*, or the *Subdominant*? What, accordingly, will be the *first link* of the Chain of Triads? This point having been settled, the student should follow out the process of modulation, as indicated in paragraph 98. As to a precise *rhythmical form*, this can hardly be observed in extemporizing a modulation: it will suffice that the *Tonic Triad* in $\frac{6}{4}$ form (in the Cadence, immediately preceding the Dominant Triad) be somewhat strongly *accentuated*, so as to appear as the *first half-note* of the measure.

CHAPTER XVII.

Modulation, in the Major Mode, to keys in the 4th, 5th, 6th and 7th grades of quint-relationship.

101. Our *seventh* modulation is to a key *four grades higher*, — as, from *C* to *E*.

84.

Or, 2^d measure, thus

etc.

C — V:I — V:I — V:IV — I — V I

102. Our *eighth* modulation is to a key *four grades lower*, — as, from *C* to *A \flat* .

85.

C — F — B \flat — E \flat — A \flat — $\frac{1}{2}$ — I — V — I —
 I — IV — IV — IV — IV — (IV)

103. Our *ninth* modulation is to a key *five grades higher*, — as, from *C* to *B*.

86.

C — G — D — A — B — $\frac{1}{2}$ — I — V — I —
 I — V — V — V — V — I — V — I —

Or, 3d meas. thus etc.

104. Our *tenth* modulation is to a key *five grades lower*, — as, from *C* to *D \flat* .

87.

C — F — B \flat — E \flat — A \flat — D \flat — $\frac{1}{2}$ — I — V — I —
 I — IV — IV — IV — IV — (IV)

105. Our *eleventh* modulation is to a key *six grades above*, — as, from *C* to *F \sharp* .

88.

C — G — D — A — E — F \sharp — $\frac{1}{2}$ — I — V — I —
 I — V — V — V — V — V — I — V — I —

Or, meas. 3. etc.

106. Our *twelfth* modulation is to a key *six grades below*, — as, from *C* to *G_b*.

89.

C I F IV:I B_b IV:I E_b IV:I A_b IV:I D_b IV:I G_b IV:(IV) I V I

107. Our *thirteenth* modulation is to a key *seven grades above*, — as, from *C* to *C_#*.

90.

C I G V:I D V:I A V:IV:I E V:IV:I B V:IV:I C_# I V I

Or, meas. 3.

etc.

108. Our *fourteenth* modulation is to a key *seven grades lower*, — as, from *C* to *C_b*.

91.

C I F IV:I B_b IV:I E_b IV:I A_b IV:I D_b IV:I G_b IV:I C_b IV:(IV) I V I

NB. The remaining modulations of this division — Nos. 15 to 26, inclusively — are for special reasons passed over for the present.

The eight modulations illustrated in this chapter should now be worked out at the piano in the manner recommended in paragraphs 99, 100. They ought to be thoroughly mastered before proceeding to the next chapter. At this point, when the principles of modulation according to this system may be assumed to be pretty well

understood, it would be an excellent exercise for the student to *construct the formulas* of the first fourteen modulations *for himself*, *i. e.*, not writing them down from memory, but, as it were, *inventing* them, in accordance with the principles on which the several modulations are carried out. In this the chief thing would be the proper succession of Triads for a given modulation and its proper expression by our method of numerals, etc: the *metrification*, *i. e.*, the arrangement according to Meter, might be done afterwards, as a secondary matter.

CHAPTER XVIII.

Preparation for modulation in the Minor Mode (2^d Division).

Chains of quint-related minor Triads.

109. We now turn our attention to the modulations of the 2^d grand division, in the *Minor Mode*, devoting the present Chapter to certain preparatory exercises in forming chains of quint-related Triads — such chains, that is, as shall be fitted to leading from one key to another. For this purpose we use here chains of *minor* Triads (with a modification to be noticed presently), just as, in the *Major Mode*, the chains consisted of *major* Triads.

110. We begin with the chain of I V (V constantly changing into I), as a preparation for modulation *in the direction of the DOMINANT*. Its formula is this:

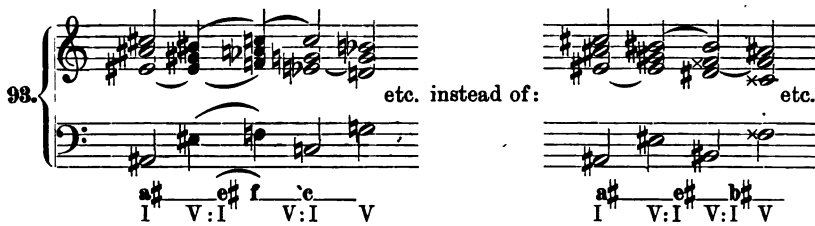
$$I | \underline{V:I} \quad \underline{V:I} | \underline{V:I} \quad \underline{V:I} | \underline{V:I} \quad \underline{V:I} | \underline{V} ||$$

to be worked out as in the following example, starting — as usually in Elevation — from the (minor) key with most flats:

92.

$I \quad \underline{V:I} \quad \underline{V:I} \quad \underline{V:I} \quad \underline{V:I} \quad \underline{V:I} \quad \underline{V:I} \quad \underline{V}$

The above chain should be taken through the other minor keys in the usual order, varying the *position* of the initial Triad. In the keys with *sharp* signature, from *b* on, an *Enharmonic Change* will be necessary, viz: the Triad $\begin{smallmatrix} b\sharp \\ e\sharp \\ a\sharp \end{smallmatrix}$ — which can appear as *v* only — must, when the formula would make it appear as *I*, be changed into $\begin{smallmatrix} e\flat \\ b \\ a\flat \end{smallmatrix}$, in which shape it may be *I*, or *V*, for subsequent minor keys with *flat* signature. Thus:

98. 

111. The next chain is in the direction of the SUBDOMINANT, thus:

$$I | IV:I | IV:I | IV:I | IV:I | IV:I | IV:I | IV:I ||$$

which formula is worked out as in the following example, starting — as usually in Depression — from the (minor) key with most sharps.

94. 

112. The chain in the direction of Tonic to Subdominant may — as we have already seen (Fig. 68, 69) — be also interpreted as in the direction of *Dominant to Tonic* — *v* *I*:*v* *I*:*v* *I*, etc.; hence the above example may take the following additional reading:

95. 

Now, generally speaking, it is smoother and more natural that in the progression of *Dominant to Tonic* — V to I — the *Dominant Triad* should be *major*, for at least *part of its value* — say, for its second half, immediately preceding the *Tonic Triad*. This applies, accordingly, to the chain represented in Fig. 94, as being identical with that in Fig. 95. Therefore, in the chain in the direction of the *Subdominant* — which we shall treat as being in the direction of *Dominant to Tonic* —, we will introduce in each Triad (except the last) a so-called *leading-tone**), by *raising* the *Third* a chromatic half step *on the 2^d quarter-note*. In this way each Triad of the chain will represent, on its first quarter-note, a *Minor Tonic* harmony, on its second, a *major Dominant* harmony. This latter progresses to its *minor Tonic* harmony, which is treated as before, and so on, to the end of the chain, as in the following example:

96. 
a#d# — g# — c# — f# — b — e — a —
I:V(V) I:V(V) I:V(V) I:V(V) I:V(V) I:V(V) I:V(V) I

113. In accordance with the above principle, our formula for the chain in the direction of the *Subdominant* (Depression) will be this —

$$\underbrace{\text{I}:\text{V}} \mid \underbrace{\text{I}:\text{V}} \quad \underbrace{\text{I}:\text{V}} \mid \underbrace{\text{I}:\text{V}} . \underbrace{\text{I}:\text{V}} \mid \underbrace{\text{I}:\text{V}} \quad \underbrace{\text{I}:\text{V}} \mid \text{I} \parallel$$

with the understanding that it is to be rendered as in the example (Fig. 96), the introduction of the *leading-tone* — implying the change from v to (V) , as expressed in the example — being omitted *in the formula*, for the sake of greater simplicity.

The foregoing chain should be practised in all the other minor keys in the usual order, varying the *position* of the initial Triad.

* Technical term for a tone which shows a tendency to lead to a tone *on the degree above or below*. Thus, *e. g.*, the *seventh degree* of a major scale naturally leads, under certain circumstances, to the *Tonic* (Octave of the first degree), rather than to the sixth degree, or the fifth, etc. The progression of the leading-tone is generally by a *diatonic half-step*; hence a *step* is often changed, by chromatic alteration, into a half-step, to form a leading-tone, — as, for instance, in the scale of *a-minor*, the progression *g—a*, into *g[#]—a*, etc.

In the keys with *flat* signature, from *d* on, whenever the formula would make the Triad $\begin{smallmatrix} c\flat \\ c\flat \\ a\flat \end{smallmatrix}$ appear as *v* (implying the minor key of *d* \flat , not in use), this Triad must be enharmonically changed into $\begin{smallmatrix} d\sharp \\ d \\ e\sharp \end{smallmatrix}$, as *v* of *c* \sharp , the key which replaces *d* \flat minor. The chain will then continue in keys with *sharp* signature, thus:

97.

etc. instead of: etc.

$\begin{smallmatrix} c\flat \\ c\flat \\ a\flat \end{smallmatrix}$ — $\begin{smallmatrix} d\sharp \\ d \\ e\sharp \end{smallmatrix}$ — $\begin{smallmatrix} f\sharp \\ f \\ g\sharp \end{smallmatrix}$ $\begin{smallmatrix} c\flat \\ c\flat \\ a\flat \end{smallmatrix}$ — $\begin{smallmatrix} d\flat \\ d\flat \\ a\flat \end{smallmatrix}$ — *I*

I:*V* *I*:*V* *I*:*V* *I*:*V* *I*:*V* *I*

CHAPTER XIX.

Modulation, in the Minor Mode, to keys in the 1st, 2^d, 3^d and 4th grades of quint-relationship.

114. The principles already laid down for modulation in the 1st Division will apply — *mutatis mutandis* — for the 2^d Division also, and the formulas for both modes will have a general correspondence, though this is to be said specifically of the formulas for *Elevation*, on account of our representing *Depression*, in the Minor Mode exclusively, by the formula *VI*, rather than *IV*, as already explained.

115. In our *twenty-seventh* modulation — to a minor key *one grade above*, — as, from *a* to *e*, the connection is immediate, on the principle (Table I, H, 1), that *I* of a key coincides with *IV* of the key one grade above. Thus:

98.

$\begin{smallmatrix} a \\ a \\ c \end{smallmatrix}$ — $\begin{smallmatrix} e \\ e \\ g \end{smallmatrix}$ — $\begin{smallmatrix} a \\ a \\ c \end{smallmatrix}$ (V) *I* —

I:*IV* — *I* (V) *I* —

116. Our *twenty-eighth* modulation is to a key *one grade below*, — as:

99.

a d I:V — I IV f (V) I

REMARK. As in the above example, the change of a minor Triad into major by raising the Third for a leading-tone, is to stop as soon as the I of the Cadence is reached.

117. Our *twenty-ninth* modulation is to a key *two grades above*, — as:

100.

a I — b V:IV f I (V) I —

118. Our *thirtieth* modulation is to a key *two grades below*, — as:

101.

a d I:V — g I:V I IV f (V) I

119. Our *thirty-first* modulation is to a key *three grades above*, — as:

102.

a I — e V:I V:IV f# I (V) I

120. Our *thirty-second* modulation is to a key *three grades below*, as:

103.

a d — g — c — f — b — (V) — I

I:V I:V I:V I IV I (V) I

121. Our *thirty-third* modulation is to a key *four grades above*, — as:

104.

a — c — b — e# — f# — (V) — I

I V:I V:I V:IV I (V) I

122. Our *thirty-fourth* modulation is to a key *four grades below*, — as:

105.

a d — g — c — f — b — (V) — I —

I:V I:V I:V I:V I IV I (V) I

The preceding eight modulations should be practised in the various minor keys without looking at the formulas, as suggested in paragraphs 99, 100.

CHAPTER XX.

Modulation, in the Minor Mode, to keys in the 5th, 6th and 7th grades of quint-relationship.

123. Our *thirty-fifth* modulation is to a key *five grades above*, — as:

106.

a — e — b — f# — g# — I (V) I
I — V:I — V:I — V:I — V:IV — I (V) I

124. Our *thirty-sixth* modulation is to a key *five grades below*, — as:

107.

a d — I:g — I:c — I:f — I:bb — I IV — I (V) I
I:V — I:V — I:V — I:V — I:V — I IV — I (V) I

125. Our *thirty-seventh* modulation is to a key *six grades above*, — as:

108.

a — e — b — f# — c# — d# — I (V) I
I — V:I — V:I — V:I — V:I — V:IV — I (V) I

126. Our *thirty-eighth* modulation is to a key *six grades below*, — as:

109.

a d g c f b e — 1

I:V I:V I:V I:V I:V I:V I IV I (V) I —

127. Our *thirty-ninth* modulation is to a key *seven grades above*, — as:

110.

a c b f# c# g# a# — 1

I V:I V:I V:I V:I V:I V:IV I (V) I —

128. Our *fortieth* modulation is to a key *seven grades below*, — as:

111.

a d g c f b e a — 1

I:V I:V I:V I:V I:V I:V I:V I IV I (V) I —

129. The six modulations of this chapter should be worked out, without looking at the formulas, in the various minor keys; moreover, the student might be called on to construct for himself (as recommended for the Major Mode, at the close of Chapter XVII) all the formulas for modulation in the Minor Mode which have been thus far exemplified.



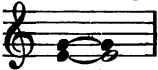

CHAPTER XXI.

Connection of tierce-related Triads in either Mode, preparatory to abbreviations in modulating.

130. As a preparation for the *abbreviation* of the longer modulations by means of "short cuts" (see Chap. XXII), we must now study the connection of *tierce-related* Triads. Here there will be, for every pair of Triads, *two connecting-tones*, and only *one* of the upper voices has to move.

In this chapter we include both the Major and the Minor Mode, and a single Triad-connection in *upper* tierce-relationship, and another in *lower*, will be a sufficient illustration for the Exercises. The tierce-relationships of Triads are exemplified in the key of *C*-major, for the Major Mode, in Fig. 12; in the key of *a*-minor, for the Minor Mode, in Fig. 14.

Upper Tierce-relationship.

131. In connecting — for instance — *C*:I  with its *upper* tierce-relative, III , we first, according to the Rule (paragraph 30), *keep the connecting-tones* — here, *e* and *g* — in *their respective voices*:  then we move the other tone, *c*, to the *next degree* — *BELOW*, as invariably in *UPPER* tierce-relationship, — and the two Triads being thus properly connected  we have only to add the root-basses, thus:

112. 


C:I III



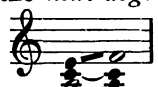
NB. The progression of the Bass as at *a* is generally better, melodically, than as at *b* (a Third being a smoother progression than a Sixth), though the latter may under certain circumstances not be conveniently avoidable.

132. In the above example (Fig. 112) the initial Triad is in *quint-position* (see paragraph 46), involving the *tierce*-position of the 2^d Triad. The initial Triad may also appear either in *root*-position, with the 2^d Triad in *quint*-position, as at *a*, in Fig. 113; or, in *tierce*-position, with the 2^d Triad in *root*-position, as at *b*:

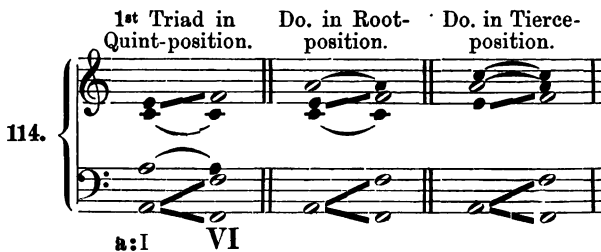


Lower tierce-relationship.

133. For illustrating the connection of a pair of Triads in *lower tierce*-relationship, we will connect *a*: I  and VI

. The connecting-tones are *a* and *c*:  the other tone, *e*, moves to the *next degree* — ABOVE, as invariably in LOWER tierce-relationship:  The root-basses, being added, form

a progression of either a descending Third or an ascending Sixth (here — *mutatis mutandis* — the remark at NB., paragraph 131, will apply):



Exercises.

NB. These Exercises should be done *at the piano*. Take each one *through all the keys* of the mode indicated, as it is just as necessary, for our purpose, to be perfectly familiar with the connection of tierce-related as with that of quint-related Triads. (For the *order of keys* see Figs. 48, 49.) Each exercise is to be done (in the same key) *three times*, according to the following Scheme:

- | | | |
|-----------------------|---|--|
| 1 st time. | { | a. Strike the Root-bass of the 1 st Triad indicated. |
| | | b. Add the three upper voices in <i>root-position</i> . |
| | | c. Connect with 2 ^d Triad indicated, the Bass moving simultaneously with the upper voice which moves. |
| 2 ^d time. | { | a. As at a, 1 st time. |
| | | b. Add the three upper voices, in <i>tierce-position</i> . |
| | | c. As at c, 1 st time. |
| 3 ^d time. | { | a. As at a, 1 st time. |
| | | b. Add the three upper voices, in <i>quint-position</i> . |
| | | c. As at c, 1 st time. |

Then take the same exercise, in the same three ways, through each of the other keys of the mode indicated. Then take the next exercise, going through it in the same different ways, — and so on of the others.

I. (In *Major*.) Connect Triads paired thus: 1. I III. — 2. I VI. — 3. II IV. — 4. III V. — 5. III I. — 6. IV VI. — 7. IV II. — 8. V III. — 9. VI I. — 10. VI IV.

II. (In *Minor*.) Connect Triads paired thus: 11. I III. — 12. I VI. — 13. III V. — 14. III I. — 15. IV VI. — 16. V VII. — 17. V III. — 18. VI I. — 19. VI IV. — 20. VII V.

CHAPTER XXII.

General Principles of Abbreviation in Modulation.

134. It is desirable to *shorten* the modulations to come (they being very long), and even some of the preceding ones. In the present chapter therefore we interrupt the course of our modulations to consider the general principles on which we may effect abbreviation by means of “short cuts.”

135. In the formulas hitherto followed we have had, in modulating to the more remote keys, to pass through many intermediary keys, making the modulation both tedious and — as our Triads are all *quint-related* — harmonically monotonous. What we need, then, is a means of eliminating some of these Triads, and this in such a manner as also to afford the desired harmonic variety. The insertion of a pair of *terce-related* Triads in our modulations will accomplish this double end, as we shall presently see.

136. Our means of effecting the desired abbreviations in modulating will be: (1) for the *Major Mode*, the introduction — *outside* of the *Cadence* — of the MINOR SUBDOMINANT Triad — (IV) — of some key, in connection with some *major* Triad to which it is *terce-related*, — as will presently be explained: and (2) for the *Minor Mode*, the introduction — also *outside* of the *Cadence* — of the MAJOR DOMINANT Triad of some key, in connection with some *minor* Triad to which it is *terce-related*.

The short cuts for the *Major Mode* (first grand division of modulations) will come first under consideration.

137. The *minor Subdominant Triad*, which now becomes so important, has thus far in our modulations appeared only in the *Cadence*, and then, either *ad libitum* — *instead* of the *normal* (major) Subdominant Triad, or *following* this Triad, for the sake of more rhythmical motion. In our short cuts, however, when the minor Subdominant Triad — which we will henceforth designate, for brevity's sake, by its symbol, (IV) — is introduced *outside of the Cadence**, as an express means of abbreviation, it is not preceded by the normal Subdominant Triad, IV.

138. The basis of our short cuts, in the *Major Mode*, is the *identity of (IV) of a key* — introduced as just explained — either (1) *with II*, or (2) *with VI*, or (3) *with III*, of some other major key.

CHAPTER XXIII.

Short Cut for Depression (Mod. 6), through the identity of (IV) with II of another key.

139. We begin our short cuts with Modulation 6, to a key *three grades below*. In its regular form (Fig. 83) *three* major Triads come between the first one and the Subdominant Triad in the Ca-

* Except in Mod. 7, formula B, when it begins the Cadence.

dence. The short cut is effected by eliminating *two* of these Triads*, on the following principle (Table I, E, 1):

In DEPRESSION, (IV) of the OLD KEY coincides with II of the key THREE GRADES BELOW.

Now, Modulation 6 being precisely to a key three grades below, it follows that the (IV) of the old key coincides with II of the new; and since II and IV of a key are *tierce-related* Triads (see Fig. 12), we have, on reaching II of the new key, only to let it be followed by IV of the same key, thus initiating the Cadence. The following illustration shows *six* Triads as against *eight* in the same modulation in Fig. 83.

Abbreviation of Mod. 6.

115.

C — Eb — 1
I (IV):II IV I V I

REMARK. In the above short cut the Cadence, it will be seen, does not begin — as it has hitherto begun in Depression — with I of the new key (see Par. 98). This will be the case, in our short cuts generally, so that the Cadence will be alike for both Elevation and Depression.

140. The above short cut — and (be it said here, once for all) each of the following ones — should be practised, according to the proper formula — marked B — in Table II, *in the various keys.*

* Only in this sense can it be called a short cut, since it does, in fact, not lessen the number of *measures* (compare Figs. 115 and 83). In general, the necessity for abbreviation is of course greater in the *longer* modulations (to come) than in those which are already short, in which the short cuts are introduced chiefly for the sake of *harmonic variety*.

CHAPTER XXIV.

Short cut (Mods. 7, 8, 10, 12, 14) through the identity of (IV) with VI of another key.

Elevation.

141. In the regular form of *Mod. 7*, to a key *four degrees above* (see Fig. 84), *two* major Triads come between the first one and the IV beginning the Cadence. The short cut is effected by eliminating these two Triads (thereby making an immediate connection with the Cadence), on the following principle (Table I, G, 3):

IN ELEVATION, VI of the OLD KEY coincides with (IV) of the key FOUR GRADES ABOVE.

In the present modulation, which is precisely to a key four grades above, we connect the first Triad — I — with its *lower tierce-relative* — VI, which, as coinciding with (IV) of the new key, initiates the Cadence in that key. Thus:

Abbreviation of Mod. 7.

116.

C E G# I V I
I VI:(IV) I

REMARK. In the above short cut exception might be taken to the abrupt change from I of a key to I of a key four grades higher, involving the objectionable melody illustrated in the *tenor* (*g* — *a* — *g*[#]) in Fig. 116 (which would be still worse in the *soprano* voice). It would therefore be as well to use the principle of this short cut — applied, of course, differently — for *Depression* only, especially as there is no great necessity for a short cut in *Mod. 7*.

Depression.

142. In Mod. 8, to a key *four grades below*, there are in the regular form (Fig. 85) *four* Triads between the first one and the IV of the Cadence. We eliminate *three* of these Triads on the principle (Table I, E, 4) — the converse of that which we have just used for Elevation — that (IV) of a key coincides with VI of the key *four grades below*; or, differently stated for our particular purpose:

In DEPRESSION, VI of the NEW KEY coincides with (IV) of the key FOUR GRADES ABOVE.

It follows from the above, that whenever, in Depression, we introduce a minor Triad which is at once (IV) of a key and VI of another, we *enter the sphere* of this latter key, which is *four grades below* the former. In the present modulation, therefore, which is to a key four grades below, the (IV) of the *old key* connects immediately with the VI of the *new*; and whereas, in *Elevation* (Fig. 116), the *major* Triad — I — is followed by the tierce-related *minor* Triad — VI; here, in *Depression*, the *minor* Triad — VI — of the new key is followed by a tierce-related *major* Triad — IV, of the same key, thus initiating the *Cadence*. For example:

Abbreviation of Mod. 8.

117.

C A \flat D \flat F
I — (IV):VI IV I V I

143. In Modulations 10, 11, 12 and 14, the Cadence begins, as in Mod. 8, with IV, preceded by its upper tierce-relative, VI. The modulation sets out in the regular form — I IV:I, etc., — continuing until a Triad is reached whose *lower quint-relative* — MINOR Triad, so that the two are correlated as I (IV) — coincides with VI of the new key. The Cadence then follows, as above stated.

Abbreviation of Mod. 10.

118.

C I F IV:I D^b (IV):VI IV I V I

Abbreviation of Mod. 12.

119.

C I F IV:I B^b IV:I G^b (IV):VI IV I V I

Abbreviation of Mod. 14.

120.

C I F IV:I B^b IV:I E^b IV:I C^b (IV):VI IV I V I

CHAPTER XXV.

Short Cut for Elevation (Mods. 9, 11, 13), through the identity of III with (IV) of another key.

144. In Mod. 9, to a key *five grades above* (Fig. 86), we have, before reaching the IV of the Cadence, *three intermediary Triads*; in Mod. 11, to a key *six grades above* (Fig. 88), *four*; and in Mod. 13, to a key *seven grades above* (Fig. 90), *five*. In each of

these modulations *three* of these intermediary Triads may be eliminated, on the following principle (Table I, C, 5):

In ELEVATION, III of the old key coincides with (IV) of the key FIVE GRADES ABOVE.

This short cut is the shortest of all the ordinary ones*, and is used in *Elevation only*.** Its application is illustrated in the following examples:

Abbreviation of Mod. 9.

121. 

C — B $\frac{2}{1}$
I III:(IV) I V I

Abbreviation of Mod. 11.

122.

C G F#
I V:I III:(IV) I V I

Abbreviation of Mod. 13.

123.

C G D C#
I V:I V:I III:(IV) I V I

CHAPTER XXVI.

Modulation, in the Major Mode, to keys in the 8th up to the 14th grade of quint-relationship.

146. In the present chapter we conclude, for the present, the modulations of the 1st Division, the course of which was interrupted at Mod. 14 (to a key seven grades below), in Chapter XVII. Here no key will have the *natural signature*, but in each modulation one of the keys will have such a *sharp signature*, the other, such a *flat signature*, that the sum of the sharps and flats (see Par. 80, e, h) will be *eight, nine, ten, eleven, thirteen or fourteen*, according to the grades of quint-relationship — or, of Elevation or Depression — involved. Thus, eight grades of Elevation, for instance, will imply that

the 1st key has 7♭; the 2^d key, 1♯: 7 + 1 = 8.
 " " " " 6♭; " " " 2♯: 6 + 2 = 8.
 " " " " 5♭; " " " 3♯: 5 + 3 = 8.
 " " " " 4♭; " " " 4♯: 4 + 4 = 8.

the 1st key has 3 \flat ; the 2^d key, 5 \sharp : 3 + 5 = 8.

" " " " 2 \flat ; " " " 6 \sharp : 2 + 6 = 8.

" " " " 1 \flat ; " " " 7 \sharp : 1 + 7 = 8.

147. That the modulations of this chapter may not be tedious, we shall, instead of working them out in the *regular* way, apply to them *two methods of abbreviation*, viz: (1) the short cuts already introduced in Chapters XXIV and XXV; and (2) a new short cut, involving an *Enharmonic Change*. The modulations will follow each other in regular order, Depression alternating with Elevation.

First method of Abbreviation.

148. In the first method of abbreviation we use, for ELEVATION, the short cut expressed thus: III:(IV), effecting an elevation of *five grades*, as explained in Chapter XXV; for DEPRESSION, the short cut (IV):VI, effecting a depression of *four grades*, as in Chapter XXIV.

149. Our *fifteenth* modulation is to a key *eight grades higher*, — as:

124.

F C G D C \sharp F D F
I V:I V:I V:I III:(IV) I V I

150. Our *sixteenth* modulation is to a key *eight grades lower*, — as:

125.

G C F B \flat A \flat G F
I IV:I IV:I IV:I IV:I (IV):VI IV I V I

151. Our *seventeenth* modulation is to a key *nine grades higher*, — as:

126.

B \flat F C G D C \sharp I V I

I V:I V:I V:I V:I III:(IV) I V I

152. Our *eighteenth* modulation is to a key *nine grades lower*, — as:

127.

D G C F B \flat E \flat C \flat I IV:I IV:I IV:I IV:I IV:I (IV):VI IV I V I

I IV:I IV:I IV:I IV:I IV:I (IV):VI IV I V I

153. Our *nineteenth* modulation is to a key *ten grades higher*, — as:

128.

E \flat B \flat F C G D C \sharp I V I

I V:I V:I V:I V:I V:I III:(IV) I V I

154. Our *twentieth* modulation is to a key *ten grades lower*, — as:

129.

A D G C F B \flat E \flat C \flat I IV:I IV:I IV:I IV:I IV:I (IV):VI IV I V I

I IV:I IV:I IV:I IV:I IV:I (IV):VI IV I V I

155. Our *twenty-first* modulation is to a key *eleven grades higher*, — as:

180.

A \flat — E \flat — B \flat — F — C — G — D — C \sharp —

I — V:I — V:I — V:I — V:I — V:I — V:I — III:(IV) — I — V — I

156. Our *twenty-second* modulation is to a key *eleven grades lower*, — as:

181.

E — A — D — G — C — F — B \flat — E \flat — C \sharp —

IIV:IIV:IIV:IIV:IIV:IIV:I — (IV):VI — IV — I — V — I —

NB. Modulations to keys distant by more than eleven grades of quint-relationship are passed over for the present.

Second Method of Abbreviation.

157. We have already seen (Figs. 50, 51) that certain keys, as being *enharmonically equivalent*, are *interchangeable* (see *Note*, p. 34), viz: in the Major Mode, C \flat and B, G \flat and F \sharp , D \flat and C \sharp ; in the Minor Mode, a \flat and g \sharp , e \flat and d \sharp , b \flat and a \sharp . Now, in each modulation (with two exceptions) to a key more than seven grades distant, *one* of the two keys concerned will be an *interchangeable* one. Advantage may be taken of this circumstance for a *very short cut*; so that a modulation by *many grades of Elevation* may be changed into one by *few grades of Depression*, — and vice-versa. The process is the following.

The *interchangeable* key may be either the *old* or the *new* key. Let us take first the former case, — as, D \flat to A, *eight grades of*

Elevation. By considering $D\flat$ as equivalent to $C\sharp$, A appears only *four grades below*. The formula is therefore that for *Mod. 8*, Table II; and we shall, in this and every subsequent case of the kind, always choose the *short cut*, when there is one. The short cut — B — in the present case is:

$$\overset{5}{\text{I}} - | \underbrace{(\text{IV}):\text{VI}} \text{ IV} | \overset{6}{\text{I}} \text{ V} | \text{I} - ||$$

which is applied as follows, the Enharmonic Change being made at the outset.

Abbreviation (with Enharmonic Change) of *Mod. 15*.

182.

$\overset{D\flat}{\text{I}} - \overset{C\sharp}{\underbrace{(\text{IV}):\text{VI}}} \overset{A}{\text{IV}} - \overset{I}{\text{I}} \text{ V I}$

158. We will now take the case of the interchangeable key being the *new* key, in which the Enharmonic Change of course cannot be made at the outset. In modulating — for instance — from F to $C\sharp$, likewise eight grades of Elevation, we enharmonically change $C\sharp$ into $D\flat$, implying *four grades below* F . The formula will therefore be the same as above, applied as follows:

Abbreviation (with Enharmonic Change) of *Mod. 15*.

183.

$\overset{F}{\text{I}} - \overset{D\flat}{\underbrace{(\text{IV}):\text{VI}}} \overset{C\sharp}{\text{IV}} - \overset{I}{\text{I}} \text{ V I}$

159. As an example of a modulation by many grades of *Depression*, shortened into one by *few* grades of *Elevation*, we will take — for instance — Modulation 16, — say, from $F\sharp$ to $B\flat$, eight

grades *lower*. Considering $F\sharp$ as $G\flat$, the modulation to $B\flat$ will be by *four* grades of *Elevation*, — formula B for Mod. 7, Table II:

$$\overset{3}{I} \underbrace{VI:(IV)} \mid \overset{6}{I} V \mid I - \mid I - \parallel$$

Abbreviation (with Enharmonic Change) of Mod. 16.

134.

$F\sharp$ I $G\flat$ $B\flat$ $VI:(IV)$ I V I

Or, should formula A be preferred to B (see *Remark* to Paragraph 141), it would appear thus:

135.

$F\sharp$ I $G\flat$ $D\flat$ $A\flat$ $B\flat$ I

etc.

160. In the following example of the above modulation with formula A the interchangeable key is the *new* key, not the old.

Abbreviation (with Enharmonic Change) of Mod. 16.

136.

A E B $C\flat$ $D\flat$ I V I

161. It is in Modulations 15 and 16 that we find the exceptions referred to in Par. 157, viz: the only two cases — in the 1st Division

— of two keys more than seven grades distant, yet neither one an *interchangeable* key. These two cases are: $A\flat$ to E , Elevation by eight grades (Mod. 15); and E to $A\flat$, Depression by eight grades (Mod. 16). Here the Enharmonic Change is practicable only at (IV) and at VI, supposing the use of formula B (Mods. 8 and 7). That is: in *Elevation* the (IV) in $A\flat$ — $\begin{smallmatrix} a\flat \\ f\flat \\ a\flat \end{smallmatrix}$ — is changed into the notation

of VI in E — $\begin{smallmatrix} e\sharp \\ c\sharp \\ c\sharp \end{smallmatrix}$; in *Depression* the process is the contrary one, VI in E being changed into the notation of (IV) in $A\flat$. If, for Depression (E to $A\flat$), the formula A (Mod. 7) is used, the V in $F\sharp$ — $\begin{smallmatrix} f\sharp \\ c\sharp \\ c\sharp \end{smallmatrix}$ — is changed into the notation of IV in $A\flat$ — $\begin{smallmatrix} a\flat \\ f \\ a\flat \end{smallmatrix}$ for initiating the Cadence in this key.

162. In Mod. 17, to a key *nine grades higher*, — as, from $D\flat$ to E — we mentally change $D\flat$ into $C\sharp$. $C\sharp$ to E , *Depression* by three grades; formula (B) for Mod. 6, exemplified as follows:

Abbreviation (with Enharmonic Change) of Mod. 17.

137.

$D\flat$ $C\sharp$ E $F\sharp$ E
 I (IV):II IV I V I

Example of Mod. 17, the *new* key being the interchangeable one:

138.

$A\flat$ $C\flat$ B $D\flat$ $E\flat$
 I (IV):II IV I V I

163. In Mod. 18, to a key *nine grades below*, — as, from $F\sharp$ to $E\flat$ — we identify $F\sharp$ with $G\flat$. $G\flat$ to $E\flat$, *Elevation* by three grades; formula for Mod. 5.

Abbreviation (with Enharmonic Change) of Mod. 18.

139.

F# G \flat D \flat E \flat ?
 I V:I V:IV I V I

164. In Mod. 19*, to a key *ten grades above*, — as, from A \flat to F#, we identify F# with G \flat . A \flat to G \flat , *Depression by two grades*; formula for Mod. 4.

Abbreviation (with Enharmonic Change) of Mod. 19.

140.

A \flat D G \flat F# ?
 I IV:I IV:I IV I V I

165. In Mod. 20, to a key *ten grades below*, — as, from E to G \flat , we identify G \flat with F#. E to F#, *Elevation by two grades*; formula for Mod. 3.

Abbreviation. (with Enharmonic Change) of Mod. 20.

141.

E G \flat ?
 I V:IV I V I

* The examples, in this modulation and the three following, are of cases in which the interchangeable key is the *new* one.

166. In Mod. 21, to a key *eleven grades above*, — as, from $A\flat$ to $C\sharp$, we identify $C\sharp$ with $D\flat$. $A\flat$ to $D\flat$, *Depression by one grade*; formula for Mod. 2.

Abbreviation (with Enharmonic Change) of Mod. 21.

142.

$A\flat$ — $D\flat$ $C\sharp$ — F — C — $A\flat$
 I — IV:I — C — IV — I — V — I

167. In Mod. 22, to a key *eleven grades below*, — as, from E to $C\flat$, we identify $C\flat$ with B . E to B , *Elevation by one grade*; formula for Mod. 1.

Abbreviation (with Enharmonic Change) of Mod. 22.

143.

E — $C\flat$ — B — F — C — E
 I — C — IV — V — I

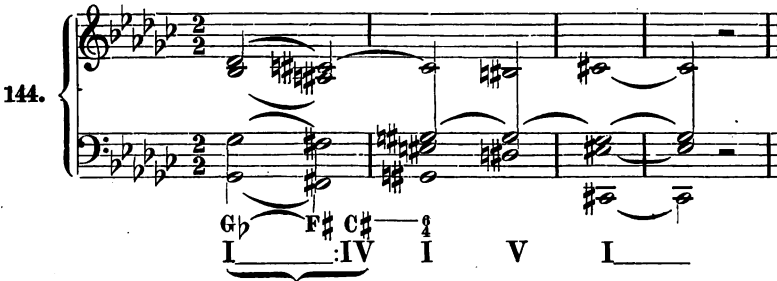
168. The modulation to a key distant by *more than eleven grades* implies that *both the keys concerned are interchangeable ones*. Thus:

Keys <i>twelve</i> grades distant.	$5\flat + 7\sharp$.	{ Elev. $D\flat$ to $C\sharp$. — $b\flat$ to $a\sharp$.
		{ Depr. $C\sharp$ to $D\flat$. — $a\sharp$ to $b\flat$.
" " " "	$6\flat + 6\sharp$.	{ Elev. $G\flat$ to $F\sharp$. — $e\flat$ to $d\sharp$.
		{ Depr. $F\sharp$ to $G\flat$. — $d\sharp$ to $e\flat$.
" " " "	$7\flat + 5\sharp$.	{ Elev. $C\flat$ to B . — $a\flat$ to $g\sharp$.
		{ Depr. B to $C\flat$. — $g\sharp$ to $a\flat$.
Keys <i>thirteen</i> grades distant.	$6\flat + 7\sharp$.	{ Elev. $G\flat$ to $C\sharp$. — $e\flat$ to $a\sharp$.
		{ Depr. $C\sharp$ to $G\flat$. — $a\sharp$ to $e\flat$.
" " " "	$7\flat + 6\sharp$.	{ Elev. $C\flat$ to $F\sharp$. — $a\flat$ to $d\sharp$.
		{ Depr. $F\sharp$ to $C\flat$. — $d\sharp$ to $a\flat$.
Keys <i>fourteen</i> grades distant.	$7\flat + 7\sharp$.	{ Elev. $C\flat$ to $C\sharp$. — $a\flat$ to $a\sharp$.
		{ Depr. $C\sharp$ to $C\flat$. — $a\sharp$ to $a\flat$.

169. In every case of a modulation to a key *twelve* grades distant, the new key is, as is seen in the above table, the *enharmonic equivalent* of the old. Consequently, an actual *modulation* may in this case be dispensed with, it being sufficient to mentally *change the signature* of the old key for that of the new.

170. After the foregoing explanations and examples, the following illustrations of the application of the Enharmonic Change for abbreviation, in the remaining four modulations of this Division, will be easily understood. It will be noticed that here the principle of contrariety, hitherto applied, no longer obtains, — in other words, that for Elevation we now use formulas of Elevation (not Depression), and for Depression, formulas of Depression (not Elevation).

a) Mod. 23. Elevation, 13 grades.

144. 

b) Mod. 24. Depression, 13 grades.



c) Mod. 25. Elevation, 14 grades.



d) Mod. 26, Depression, 14 grades.



CHAPTER XXVII.

Short Cuts in the 2^d Division (Mods. 35—40) through the identity of (V) with VI of another key.

171. The short cuts in the 2^d Division — Minor to Minor — are based on the following principle (Table I, L, 3):

In ELEVATION, (V) of a key coincides with VI of the key *five grades higher*; and its converse:

In DEPRESSION, VI of a key coincides with (V) of the key *five grades lower*.

172. In applying this short cut in ELEVATION, the starting-triad of the modulation is immediately followed by its (V), which coincides with VI of the key five grades higher. In Mod. 35, to a key five grades higher, this VI belongs to the *new key*, and is immediately followed by its *lower tierce-relative* — IV, which initiates the Cadence, as illustrated in Fig. 145. The sequence: I (V):VI IV ⁶I is, however, objectionable, as involving an inharmonious progression* — for instance (in Fig. 145) — *c b c# b*. For this reason this particular application of the principle: (V):VI must, at least, not be extended beyond Mod. 35. In modulations to keys *more than five grades higher* (Mods. 37, 39, 41, etc.), the VI is followed by its *UPPER tierce-relative*, I. If this I coincides with IV of the new key (as in Mod. 37), let this IV initiate the Cadence (as in Fig. 147);

* We have already had something similar to this. See Fig. 116, and *Remark* immediately following.

otherwise, the I following the VI is to be succeeded by one *upper quint-relative* after another — $\underline{V:I} \underline{V:I}$, etc., — until a Triad is reached which, coinciding with IV of the new key, initiates the Cadence (as in Figs. 149, 151, etc.).

173. The application of this short cut in DEPRESSION is the following. The *Cadence* begins with I (of the new key), preceded by its (V), which latter coincides with VI of the preceding key, *five grades higher*. This VI, as such, is preceded by its *upper tierce-relative* — I. Accordingly, the Cadence, with these prefixes, will appear thus:

$$| \text{I } \underline{\text{VI:}(\text{V})} | \text{I IV} | \overset{6}{\text{I}} (\text{V}) | \text{etc.}$$

The procedure is, after Mod. 36, to form the usual chain — I:V I (see Par. 113), etc. — until that particular I is reached, whose lower tierce-relative — VI — coincides with (V) of the new key, whereupon the complete Cadence begins, as above represented.

Abbreviation of Mod. 35.

145.

a — g# — f
I (V):VI IV I (V) I

Abbreviation of Mod. 36.

146.

a — b — f
I VI:(V) I IV I (V) I

Abbreviation of Mod. 37.

147.

a — g# d# f a g# f e d c b a

I (V):VI I:IV I (V) I

Abbreviation of Mod. 38.

148.

a d e b a d e b a d e b a d e b a

I:V I VI:(V) I IV I (V) I

Abbreviation of Mod. 39.

149.

a — g# a# f a g# a# f a g# a# f a g# a# f a

I (V):VI I V:IV I (V) I

Abbreviation of Mod. 40.

150.

a d g a b a d g a b a d g a b a d g a b a

I:V I:V I VI:(V) I IV I (V) I

CHAPTER XXVIII.

Modulation in the Minor Mode, to keys in the 8th up to the 14th grade of quint-relationship.

174. The present Chapter concludes, for the present, the modulations of the 2^d Division. Here, as in the corresponding modulations of the 1st Division (Chapter XXVI), no key has the *natural signature*, but in each modulation one of the keys will have such a *sharp signature*, the other, such a *flat signature*, that the sum of the sharps and flats will be *eight, nine, ten, eleven, thirteen or fourteen*, according to the grades of quint-relationship involved. Here, too, the modulation to a key *twelve* grades distant is omitted, the two keys being in this case enharmonically equivalent (see Par. 169).

175. In these modulations, as in the corresponding ones of the 1st Division, *two methods of abbreviation* will be followed. The first one consists of the short cuts employed in the preceding Chapter; the second one, of the very short cut by means of an *Enharmonic Change*, exactly corresponding to that employed for the concluding modulations of the 1st Division (see Par. 157).

First Method of Abbreviation.

176. Our *forty-first* modulation is to a key *eight grades higher*, — as:

151.

d c# g# a# f

I (V):VI I V:I V:IV I (V) I

177. Our *forty-second* modulation is to a key *eight grades lower*, — as:

152.

e a d g a^b i

I:V I:V I:V I VI:(V) I IV I (V) I

178. Our *forty-third* modulation is to a key *nine* grades higher, — as:

153.

g f# c# g# a# i

I (V):VI I V:I V:I V:IV I (V) I

179. Our *forty-fourth* modulation is to a key *nine* grades lower, — as:

154.

b e a d g a^b i

I:V I:V I:V I:V I VI:(V) I IV I-(V) I

180. Our *forty-fifth* modulation is to a key *ten* grades higher, — as:

155.

c b f# c# g# a# i

I (V):VI I V:I V:I V:I V:IV I (V) I

158.

The musical score for 'The Rose Tree' is presented on two staves. The top staff is a vocal line in treble clef, and the bottom staff is a piano accompaniment in treble clef. The key signature has one sharp (F#), and the time signature is 2/4. The melody is simple and catchy, with a repeating pattern of eighth and quarter notes. The piano accompaniment provides a steady harmonic foundation with chords and single notes. The piece concludes with a final chord and a fermata over the last note of the melody.

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Second Method of Abbreviation.

184. Here, as in the 1st Division, we begin with modulations to keys distant by *more than seven grades*, implying in each modulation (with two exceptions) at least one *interchangeable key*, affording opportunity for a very short cut by means of an *Enharmonic Change*. Two examples — one for Depression (Mod. 42*, Fig. 159), the other for Elevation (Mod. 43, Fig. 162) — are deemed sufficient for illustrating those modulations in which, the interchangeable key being the *new* one, the Enharmonic Change is made at the outset. Fig. 161 illustrates one of the exceptional cases above alluded to, in which neither key is interchangeable.

Mod. 42. Depression, 8 grades (Elevation, 4 grades).

159.

Formula, Mod. 33. $\text{I} \quad \text{V:I} \quad \text{V:I} \quad \text{V:IV} \quad \text{I} \quad (\text{V}) \quad \text{I}$

Mod. 42. As above, with interchangeable new key.

160.

Formula, Mod. 33. $\text{I} \quad \text{V:I} \quad \text{V:I} \quad \text{V:IV} \quad \text{I} \quad (\text{V}) \quad \text{I}$

* The application of this second method of abbreviation to Mod. 41, eight grades of *Elevation*, implies the use of the formula for Mod. 34, four grades of *Depression*. But this would imply *nine* Triads in the modulation, as against *eight* in the formula without the Enharmonic Change (see Fig. 151), and would be no abbreviation.

Mod. 42. As above, neither key being interchangeable.

161.

Formula, Mod. 33. $\overset{c\#}{I} \quad \overset{g\#}{V:I} \quad \overset{d\#}{V:I} \quad \overset{e\#}{V:IV} \quad f \quad I \quad (V) \quad I$

Mod. 43. Elevation, 9 grades (Depression, 3 grades).

162.

Formula, Mod. 32. $\overset{b\flat}{I} : \overset{a\#}{V} \quad \overset{d\#}{I : V} \quad \overset{g\#}{I : V} \quad \overset{c\#}{I} \quad IV \quad I \quad (V) \quad I$

Mod. 43. As above, with interchangeable new key.

163.

Formula, Mod. 32. $\overset{g}{I : V} \quad \overset{c}{I : V} \quad \overset{f}{I : V} \quad \overset{b\flat}{I} \quad \overset{a\#}{IV} \quad I \quad (V) \quad I$

Mod. 44. Depression, 9 grades (Elevation, 3 grades).

164.

Formula, Mod. 31. $\overset{b}{I} \quad \overset{f\#}{V : I} \quad \overset{g\#}{V : IV} \quad \overset{a\flat}{I} \quad I \quad (V) \quad I$

Mod. 45. Elevation, 10 grades (Depression, 2 grades).

165.

Formula, Mod. 30. $\overset{c}{I} : \overset{f}{V} \quad \overset{b}{I} : \overset{a}{V} \quad I \quad IV \quad I \quad (V) \quad I$

Mod. 46. Depression, 10 grades (Elevation, 2 grades).

166.

Formula, Mod. 29. $\overset{f\#}{I} \quad \overset{g\#}{V: IV} \quad \overset{a}{I} \quad (V) \quad I$

Mod. 47. Elevation, 11 grades (Depression, 1 grade).

167.

Formula, Mod. 28. $\overset{f}{I} : \overset{b}{V} \quad I \quad IV \quad I \quad (V) \quad I$

Mod. 48. Depression, 11 grades (Elevation, 1 grade).

168.

Formula, Mod. 27. $\overset{c\#}{I} : \overset{g\#}{IV} \quad \overset{a}{I} \quad (V) \quad I$

Mod. 49. Elevation, 13 grades (Elevation, 1 grade).

169.

Formula, Mod. 27. $\text{e}\flat \text{b}\flat \text{a}\sharp \text{---} \frac{1}{2}$ I : IV — I (V) I —

Mod. 50. Depression, 13 grades (Depression, 1 grade).

170.

Formula, Mod. 28. $\text{d}\sharp \text{g}\sharp \text{---} \text{a}\flat \text{---} \frac{1}{2}$ I : V — I IV I (V) I

Mod. 51. Elevation, 14 grades (Elevation, 2 grades).

171.

Formula, Mod. 29. $\text{a}\flat \text{---} \text{b}\flat \text{a}\sharp \text{---} \frac{1}{2}$ I V : IV — I (V) I —

Mod. 52. Depression, 14 grades (Depression, 2 grades.)

172.

Formula, Mod. 30. $\text{a}\sharp \text{d}\sharp \text{g}\sharp \text{---} \text{a}\flat \text{---} \frac{1}{2}$ I : V I : V I IV I (V) I

CHAPTER XXIX.

Modulation in the 3^d Division, up to seven grades of Elevation and Depression.

185. If the modulations of the preceding two divisions have been well understood and diligently practised, those of the following two divisions will be found comparatively easy. Here the *grades* are — not those of *quint-relationship*, but — of *Elevation* or *Depression* according to the *key-signatures* involved (see Par. 79).

186. The modulations of this Division may be worked out in *regular* forms on two general principles, viz: (1) for *Elevation*, **V** of a key coincides with **VI** of the *minor key two grades higher* (Table I, F, 4). Procedure (after Mod. 54): Let the first Triad — **I** of the old key — be followed by one *upper quint-related* major Triad after another (**I V:I**, etc.), until a **V** is reached which coincides with **VI** of the new (minor) key. This **VI** is succeeded by its *lower tierce-related* minor Triad — **IV**, which initiates the Cadence. (2) For *Depression*, **IV** of a key coincides with **VI** of the *parallel minor* key (Table I, D, 5). Procedure: Let the first Triad be followed by one *lower quint-related* major Triad after another (**I IV:I**, etc.), until a **IV** is reached which coincides with **VI** of the new key; then form the Cadence, as in Elevation. In Depression, the new key is always the *parallel minor* of the last *major* key of the modulation, *i. e.*, that key whose **IV** coincided with **VI** of the new key.

These regular forms become, after a while, undeniably tedious. At any rate, assuming the student's ability to work out the modulations of this Division in these regular forms, we dispense with illustrations of the greater part of them, and give abbreviated forms instead. For economizing space we merely give an example of each modulation, omitting, as unnecessary, all explanation other than the indication (in brackets, and referring of course to Table I, Chapter XIV) of the principle on which the modulation is based.

Mod. 53. To the parallel minor key. [D, 5.]

173.

C I — IV:VI IV I (V) I

Mod. 54. Elevation, 1 grade. [A, 2.]

174.

C e I:VI IV I (V) I

Mod. 55. Depression, 1 grade. [D, 5.]

175.

C I IV:I IV:VI IV I (V) I

Mod. 56. Elevation, 2 grades. [F, 4.]

176.

C I — V:VI IV I (V) I

187. The principle: III:IV (C, 2), analogous to III:(IV) (C, 5), for the 1st Division, affords a formula shorter than the above by one Triad, as in Fig. 177. The principle; V:VI (F, 4), as in Fig. 176,

may be extended to following modulations in Elevation, by prefixing to the formula one additional lower quint-related Triad for each additional grade.

Mod. 56. Elevation, 2 grades. [C, 2.]

177.

C — b — $\frac{1}{2}$

I III:IV I (V) I

Mod. 57. Depression, 2 grades. [D, 5.]

178.

C — F — B \flat — $\frac{1}{2}$

I IV:I IV:I IV:VI IV I (V) I

Mod. 58. Elevation, 3 grades. [C, 2.]

179.

C — G — F# — $\frac{1}{2}$

I V:I III:IV I (V) I

Mod. 59. Depression, 3 grades. [D, 5.]

180.

C — F — B \flat — E \flat — c — $\frac{1}{2}$

I IV:I IV:I IV:I IV:VI IV I (V) I

Mod. 60. Elevation, 4 grades. [C, 2.]

181.

C G D $\sharp G$
I $\underline{V:I}$ $\underline{V:I}$ $\underline{III:IV}$ I (V) I

Mod. 61. Depression, 4 grades. [A, 5.]

182.

C \sharp $\underline{I:(V)}$ I IV I (V) I

Mod. 62. Elevation, 5 grades. [C, 2.]

183.

C G D $\sharp A$ $\sharp G$ $\sharp C$
I $\underline{V:I}$ $\underline{V:I}$ $\underline{V:I}$ $\underline{III:IV}$ I (V) I

Mod. 63. Depression, 5 grades. [D, 4.]

184.

C \flat \underline{I} $\underline{IV:(V)}$ I IV I (V) I

(Additional illustrations of the formula thus far used for *Elevation* are deemed unnecessary. And as this formula is becoming tedious, its place will be supplied by shorter ones.)

Mod. 67. Depression, 7 grades. [D, 4.]

188.

C F B \flat A \flat G F E D C

I IV:I IV:I IV:(V) I IV I (V) I

(The remaining modulations of this Division are passed over for the present.)

CHAPTER XXX.

Modulation in the 4th Division, up to seven grades of Elevation and Depression.

188. Whereas, in the regular modulation-formulas of the 3^d Division the IV of the Cadence was preceded by its (major) *upper tierce-relative* — VI, which VI coincided with I, IV or V of the key immediately before; here, in the regular formulas of the 4th Division, the IV of the Cadence coincides with VI of the key immediately before (always the *parallel minor* key), which VI is preceded by its (minor) upper tierce-relative — I. The Cadence, accordingly, will begin with IV, with the prefix, for *Elevation*, v:I VI; for *Depression*, I VI, — thus:

In *Elevation*: v:I VI:IV | $\overset{6}{\underset{4}{\text{I}}} \text{ V} | \text{ etc.}$

In *Depression*: I VI:IV | $\overset{6}{\underset{4}{\text{I}}} \text{ V} | \text{ etc.}$

The procedure will be (after Mod. 82), to begin with the usual formula — I v:I, etc., or, I v I, etc., continuing in the Minor Mode till a I is reached whose *lower tierce-relative* — VI — coincides with the IV of the new (major) key, which IV initiates the Cadence.

Mod. 82. To the parallel major key. [M, 5.]

189.

$I \quad \overset{a}{\text{VI:IV}} \quad \overset{C}{I} \quad \overset{f}{V} \quad I$

Mod. 83. Elevation, 1 grade. [M, 5.]

190.

$I \quad \overset{a}{V:I} \quad \overset{e}{\text{VI:IV}} \quad \overset{G}{I} \quad \overset{f}{V} \quad I$

Mod. 83. Elevation, 1 grade. [H, 2.]

191.

$I \quad \overset{a}{G} \quad \overset{f}{I:II} \quad IV \quad \overset{f}{I} \quad V \quad I$

Mod. 84. Depression, 1 grade. [M, 5.]

192.

$I \quad \overset{a}{d} \quad \overset{f}{I:V} \quad I \quad \overset{F}{\text{VI:IV}} \quad \overset{f}{I} \quad V \quad I$

Mod. 85. Elevation, 2 grades. [M, 5.]

193.

a c b D f

I V:I V:I VI:IV I V I

(Mods. 87, 89, 91, etc., may be worked out on the same principle as Mod. 85, by prefixing to the formula one additional lower quint-related minor Triad for each additional grade of Elevation.)

Mod. 85. Elevation, 2 grades. [K, 4.]

194.

a D f

I V:II IV I V I

Mod. 86. Depression, 2 grades. [M, 5.]

195.

a d g Bb f

I:V I:V I VI:IV I V I

Mod. 87. Elevation, 3 grades. [K, 4.]

196.

a e A I V I

I V:I V:II IV I V I

(This last formula may be used for following modulations in Elevation, by prefixing one lower quint-related minor Triad for each additional grade.)

Mod. 88. Depression, 3 grades. [M, 5.]

197.

a d g c Eb I V I

I:V I:V I:V I VI:IV I V I

(This last formula may be used for following modulations in Depression, by prefixing one upper quint-related minor Triad for each additional grade.)

Mod. 89. Elevation, 4 grades. [H, 5.]

198.

a E I V I

I:(IV) I V I

Mod. 90. Depression, 4 grades. [M, 3; H, 2.]

199.

I VI:(V) I:II IV I V I

(In the above formula the principle VI:(V) would depress by one grade too many; but the application of a principle of *Elevation* by one grade — I:II — neutralizes the excess of Depression.)

Mod. 91. Elevation, 5 grades. [K, 6.]

200.

I V:(IV) I VI

Mod. 92. Depression, 5 grades. [M, 3; M, 5.]

201.

I VI:(V) I VI:IV I V I

Mod. 93. Elevation, 6 grades. [K, 6.]

202.

I V:I V:(IV) I V I

Mod. 94. Depression, 6 grades. [M, 3; M, 5.]

203.

a d e_b d_b c_b a

I:V I VI:(V) I VI:IV I V I

Mod. 95. Elevation, 7 grades. [K, 6.]

204.

a e b c_# d_# e_# f_#

I V:I V:I V:(IV) I V I

Mod. 96. Depression, 7 grades. [M, 3; M, 5.]

205.

a d g a_b g_b f_b e_b d_b

I:V I:V I VI:(V) I VI:IV I V I

NB. The remaining modulations of this Division are passed over for the present.

CHAPTER XXXI.

Harmonic Variants and Extra-Short Cuts.

189. It is now time to consider certain *addenda* to the modulation-formulas which we have thus far used, viz: the HARMONIC VARIANT and the EXTRA-SHORT-CUT, — the latter, especially, being necessary for completing the formulas of the last two divisions. It was thought best to defer the consideration of these points till now, for avoiding confusion.

190. The HARMONIC VARIANT is a formula which gives a *harmonic variation* of another formula (as its very name implies), yet *does not shorten it* by a single Triad. The Harmonic Variant may be a variation either of a regular formula or of a Short Cut. Its sign is a *double letter*, — as, *AA*, *BB*, etc.

191. The EXTRA-SHORT-CUT (indicated in Table II and in the following chapters by the letter *D*) differs from the *ordinary* short cut in that it contains *repetitions* of those principles by means of which, as we have seen, leaps of *four or five grades* are made. In Fig. 206, for instance, we have the combination of the principles *E, 2* (leap of five grades) and *E, 4* (leap of four grades), — giving the required nine grades of Depression, in a very short formula. The Extra-short cut is especially useful in those modulations which involve very remote keys; in fact, as its *lowest* abbreviation-power is the combination of a short cut for *four* grades with one for *five*, it cannot be applied to modulations involving fewer than *nine* grades.

The diligent study of TABLE I, Chapter XIV, will suggest a great many possible Harmonic Variants and Extra-short Cuts, the most desirable of which, where most needed, are given in these concluding chapters of this work. The complete presentation of *all* the formulas — the regular one, the Harmonic Variant, the ordinary Short Cut, and the Extra-short Cut — for each modulation admitting of more than one formula, will be found in TABLE II, Universal Formulas for Modulation, page 135.

CHAPTER XXXII.

Addenda to the Modulation-formulas of the First Division.

Mod. 18. D. Depression, 9 grades (see Fig. 127). [E, 2; E, 4.]

206.

D I Eb (IV):III I Cb (IV):VI IV I V I

Mod. 19. D. Elevation, 10 grades (see Fig. 128). [C, 5, twice.]

207.

Eb I D III:(IV) I C# III:(IV) I V I

Mod. 20. D. Depression, 10 grades (see Fig. 129). [E, 2; E, 4.]

208.

A I D IV:I Eb (IV):III I Cb (IV):VI IV I V I

Mod. 21. D. Elevation, 11 grades (see Fig. 130). [C, 5, twice.]

209.

Mod. 25. D. Elevation, 14 grades. [G, 3; C, 5, twice.]

213.

C^b — E^b — D — C[#] —
 I VI:(IV) I III:(IV) I V I

Mod. 26. D. Depression, 14 grades. [E, 2, twice; E, 4.]

214.

C[#] — D — E^b — C^b —
 I (IV):III I (IV):III I (IV):VI IV I V I

CHAPTER XXXIII.

Addenda to the Modulation-formulas of the
Second Division.

Mod. 33. AA. Elevation, 4 grades (see Fig. 104). [L, 1.]

215.

a — c[#] —
 I (V):III VII IV I (V) I

Mod. 34. AA. Depression, 4 grades (see Fig. 105). [I, 1.]

216.

a f f

I V III:(V) I IV I (V) I

REMARK. The above Harmonic Variant is perhaps the best possible under the circumstances. A *Short cut* might have been formed by a different application of the principle [I, 1], viz: by letting the III:(V) follow *immediately* after the I of the new key, thus:

217.

a f f

I III:(V) I IV I

etc.

But the effect of the tenor $a\flat$ (3^d half-note) so soon after the bass A (1st half-note), in the above formula, is bad, a kind of so-called *Cross Relation* (*False Relation*)* being the result. We there-

* Technical terms for the violation of the general principle, that a chord-tone which, in a second or third chord, is *chromatically altered*, should, for the sake of euphony, be *in the same voice* that had the *original* (unaltered) tone. Examples:

Wrong.	Right.	Wrong.	Right.	Wrong.	Right.
$a\flat$		a	$a\flat$	$a\flat$	
A	$A\flat$	$A\flat$	A	A	$A\flat$

Wrong.	Right.	Wrong.	Right.
a	$a\flat$	a	$a\flat$
$A\flat$	$A\flat$	$A\flat$	$A\flat$

etc.

It is true that in Fig. 217 the a and $a\flat$ (measures 1 and 2) are both in the same voice (Tenor); but the *Bass* also begins with A , against which the $a\flat$ clashing, two chords later, produces a harsh effect, which comes under the category of *Cross Relation*.

fore insert between I and III:(V) the normal Dominant Triad — v — of the old key, to be followed by its lower tierce-relative — III, which coincides with (V) of the new key. We thus obtain the Harmonic Variant as in Fig. 216. The exceptional *syncopation* of the v here is for the express purpose of weakening the impression of the starting-triad, so soon to be followed by the I of the new key, with its Third (*a*^b) a chromatic half-step below the root (*a*) of the starting-triad.

Mod. 38. BB. Depression, 6 grades (see Fig. 148). [M, 1; M, 3.]

218.

a — d — e^b — f — g — a — b — c —

I VI:III VI:(V) I IV I (V) I

Mod. 40. BB. Depression, 7 grades (see Fig. 150). [M, 4; M, 3.]

219.

a — g — a^b — c — d — e — f — g — a —

I VI:VII III VI:(V) I IV I (V) I —

Mod. 42. BB. Depression, 8 grades (see Fig. 152). [M, 4; M, 3.]

220.

c a — d — e — f — g — a — b — c — d — e —

I:V I VI:VII III VI:(V) I IV I (V) I —

Mod. 44. BB. Depression, 9 grades (see Fig. 154). [M, 4; M, 3.]

221.

be — a — g — a_b — i

I:V I:V I VI:VII III VI:(V) I IV I (V) I

Mod. 45. D. Elevation, 10 grades (see Fig. 155). [L, 3, twice.]

222.

c *b* *a* *2*
I (V):VI I (V):VI IV I (V) I

Mod. 46. D. Depression, 10 grades (see Fig. 156). [M, 3, twice.]

223.

r^{\sharp} — 8 — ab — 1 — 1

I VI:(V) I VI:(V) I IV I (V) . I —

Mod. 47. D. Elevation, 11 grades (see Fig. 157). [L, 3, twice; H, 1.]

224.

f — e — d^\sharp — a^\sharp — \dot{d}

I (V):VI I (V):VI I:IV I (V) I

Mod. 48. D. Depression, 11 grades (see Fig. 158). [M, 3, twice; M, 1.]

225.

c^\sharp — d — g — a^\flat — \dot{d}

I VI:(V) I VI:III VI:(V) I IV I (V) I—

Mod. 49. D. Elevation, 13 grades. [L, 3, twice.]

226.

e^\flat — d — c^\sharp — g^\sharp — a^\sharp — \dot{d}

I (V):VI I (V):VI I V:I V:IV I (V) I—

Mod. 50. D. Depression, 13 grades. [M, 1, twice; M, 3, twice.]

227.

The musical score for '227.' is written on two staves. The top staff is in treble clef with a key signature of three sharps (F#, C#, G#) and a 2/2 time signature. It contains a single melodic line with various rests and notes. The bottom staff is in bass clef with the same key signature and time signature. It contains a single melodic line with various rests and notes. The two staves are connected by a brace on the right side. The score is divided into measures by vertical bar lines.

Mod. 51. D. Elevation, 14 grades. [L, 3, twice; I, 2.]

[illegible]

Mod. 52. D. Depression, 14 grades. [M, 3, twice; M, 1, twice.]

229.

1: V 1: V I VI: (V) I VI: III VI: III VI: (V) I IV I (V) I

CHAPTER XXXIV.

Conclusion of the Modulations of the Third Division.

Mod. 68. CC. Elevation, 8 grades. [C, 5; C, 2.]

230.

F — C — B — a# — $\frac{1}{2}$
 I — V:I — III:(IV) — I — III:IV — I (V) I

Mod. 68. E. (Formula B, Depression, 4 grades. Mod. 61.)

231.

F — a# — $\frac{1}{2}$
 I : (V) I IV I (V) I

Mod. 69. B. Depression, 8 grades. [D, 4.]

232.

G — C — F — Bb — a — $\frac{1}{2}$
 I — IV:I — IV:I — IV:I — IV:(V) I IV I (V) I —

Mod. 69. E. (Formula B, Elevation, 4 grades. Mod. 60.)

233.

G — D — A — a^b — $\frac{1}{2}$ (V) I

I V:I V:I III:IV — I (V) I

Mod. 70. CC. Elevation, 9 grades. [C, 5; C, 2.]

234.

B^b — F — C — B — a[#] — $\frac{1}{2}$ (V) I —

I V:I V:I III:(IV) I III:IV — I (V) I —

Mod. 70. E. (Formula, Depression, 3 grades. Mod. 59.)

235.

B^b — E^b — A^b — D^b — b^b — a[#] — $\frac{1}{2}$

I IV:I IV:I IV:I IV:VI IV I (V) I —

Mod. 71. D. Depression, 9 grades. [A, 5; M, 3.]

236.

D g — a^b — $\frac{1}{2}$

I:(V) I VI:(V) I IV I (V) I

Mod. 71. E. (Formula B, Elevation, 3 grades. Mod. 58.)

237.

D — A — a^b — $\frac{1}{2}$
 I — V: I III: IV — I (V) I —

Mod. 72. CC. Elevation, 10 grades. [C, 5; C, 2.]

238.

E^b — D — A — E — B — a[#] — $\frac{1}{2}$
 I III:(IV) I V: I V: I V: I III: IV I (V) I —

Mod. 72. E. (Formula, Depression, 2 grades. Mod. 57.)

239.

E^b — A^b — D^b — b^b — a[#] — $\frac{1}{2}$
 I IV: I IV: I IV: VI IV I (V) I

Mod. 73. D. Depression, 10 grades. [D, 4; M, 3.]

240.

A — g — a^b — $\frac{1}{2}$
 I IV:(V) I VI:(V) I IV I (V) I —

Mod. 73. E. (Formula B, Elevation, 2 grades. Mod. 56.)

241.

$\text{I} \quad \text{III} : \text{IV} \quad \text{I} \quad (\text{V}) \quad \text{I} \quad \text{—}$

Mod. 74. D. Elevation, 11 grades. [C, 5, twice.]

242.

$\text{I} \quad \text{III} : (\text{IV}) \quad \text{I} \quad \text{III} : (\text{IV}) \quad \text{I} : \text{VI} \quad \text{IV} \quad \text{I} \quad (\text{V}) \quad \text{I} \quad \text{—}$

Mod. 74. E. (Formula, Depression, 1 grade. Mod. 55.)

243.

$\text{I} \quad \text{IV} : \text{I} \quad \text{IV} : \text{VI} \quad \text{IV} \quad \text{I} \quad (\text{V}) \quad \text{I} \quad \text{—}$

Mod. 75. D. Depression, 11 grades. [D, 4; M, 3.]

244.

$\text{I} \quad \text{IV} : \text{I} \quad \text{IV} : (\text{V}) \quad \text{I} \quad \text{VI} : (\text{V}) \quad \text{I} \quad \text{IV} \quad \text{I} \quad (\text{V}) \quad \text{I} \quad \text{—}$

Mod. 75. E. (Formula, Elevation, 1 grade. Mod. 54.)

245.

$\text{E} \text{---} \text{g}^\sharp \text{---} \text{a}^\flat \text{---} \text{f} \text{---}$
 $\text{I} : \text{VI} \text{---} \text{IV} \text{---} \text{I} \text{---} (\text{V}) \text{---} \text{I} \text{---}$

Mod. 76. D. Elevation, 12 grades. [C, 5, twice.]

246.

$\text{D}^\flat \text{---} \text{C} \text{---} \text{B} \text{---} \text{a}^\sharp \text{---} \text{f} \text{---}$
 $\text{I} \text{---} \text{III}:(\text{IV}) \text{---} \text{I} \text{---} \text{III}:(\text{IV}) \text{---} \text{I} \text{---} \text{V}:\text{VI} \text{---} \text{IV} \text{---} \text{I} \text{---} (\text{V}) \text{---} \text{I} \text{---}$

Mod. 76. E. (Formula, Mod. 53, to the Parallel Minor key.)

247.

$\text{D}^\flat \text{---} \text{b}^\flat \text{---} \text{a}^\sharp \text{---} \text{f} \text{---}$
 $\text{I} \text{---} \text{IV}:\text{VI} \text{---} \text{IV} \text{---} \text{I} \text{---} (\text{V}) \text{---} \text{I} \text{---}$

Mod. 77. D. Depression, 12 grades. [D, 4; M, 3.]

248.

$\text{B} \text{---} \text{E} \text{---} \text{A} \text{---} \text{g} \text{---} \text{a}^\flat \text{---} \text{f} \text{---}$
 $\text{I} \text{---} \text{IV}:\text{I} \text{---} \text{IV}:\text{I} \text{---} \text{IV}:(\text{V}) \text{---} \text{I} \text{---} \text{VI}:(\text{V}) \text{---} \text{I} \text{---} \text{IV} \text{---} \text{I} \text{---} (\text{V}) \text{---} \text{I} \text{---}$

Mod. 77. E. (Formula, Mod. 53; to the Parallel Minor key.)

249.

B — g# — a — 1

I IV:VI IV I (V) I

Mod. 78. D. Elevation, 13 grades. [C, 5, twice, etc.]

250.

Gb — F — E — g# — a# — 1

I III:(IV) I III:(IV) I III:I V:IV I (V) I —

Mod. 78. E. (Formula, Elevation, 1 grade. Mod. 54.)

251.

Gb — F# — a# — 1

I : VI IV I (V) I —

Mod. 79. D. Depression, 13 grades. [D, 4; M, 3.]

252.

F# — B — E — A — g — a — 1

I IV:IV:IV:IV:(V) I VI:(V) I IV I (V) I

Mod. 79. E. (Formula, Depression, 1 grade. Mod. 55.)

253.

$F\sharp - B - C\flat a\flat - \frac{1}{2}$
 $I \quad IV:I \quad IV : VI \quad IV \quad I \quad (V) \quad I$

Mod. 80. D. Elevation, 14 grades. [C, 5, twice, etc.]

254.

$C\flat - G\flat - F - C - B - a\sharp - \frac{1}{2}$
 $I \quad V:I \quad III:(IV) \quad I \quad V:I \quad III:(IV) \quad I \quad III:IV \quad I \quad (V) \quad I$

Mod. 80. E. (Formula, Elevation, 2 grades. Mod. 56.)

255.

$C\flat - B - a\sharp - \frac{1}{2}$
 $I \quad \quad \quad III:IV \quad I \quad (V) \quad I -$

Mod. 81. D. Depression, 14 grades. [E, 5; M, 3, twice.]

256.

$C\sharp - f\sharp - g - a\flat - \frac{1}{2}$
 $I \quad (IV):I \quad VI:(V) \quad I \quad VI:(V) \quad I \quad IV \quad I \quad (V) \quad I -$

Mod. 81. E. (Formula, Depression, 2 grades. Mod. 57.)

257.

C^\sharp — F^\sharp — B — C^\flat a^\flat — $\frac{1}{2}$
 I $\underbrace{IV:I IV:I}_{IV} : VI IV I (V) I$

CHAPTER XXXV (Final).

Conclusion of the Modulations of the Fourth Division.

Mod. 97. B. Elevation, 8 grades.

258.

d — a — e — b — C^\sharp — $\frac{1}{2}$
 I $\underbrace{V:I V:I}_{V:I} \underbrace{V:I V:(IV)}_{V} I V I$

Mod. 97. E. (Formula, Depression, 4 grades. Mod. 90.)

259.

d — e^\flat — a^\flat — C^\sharp — $\frac{1}{2}$
 I $\underbrace{VI:(V)}_{VI:(V)} I : II IV I V I$

Mod. 98. B. Depression, 8 grades.

260.

Mod. 100. B. Depression, 9 grades.

264.

\flat C F \flat B \flat a \flat C \flat \sharp

I VI:V I IV:I IV:I IV:(V) I VI:IV I V I

Mod. 100. E. (Formula, Elevation, 3 grades. Mod. 87.)

265.

\flat f \sharp B C \flat \sharp

I V:I V:II IV C \flat I V I

Mod. 101. D. Elevation, 10 grades. [K, 6; C, 5.]

266.

\flat D C \sharp \sharp

I V:(IV) I III:(IV) I V I

Mod. 101. E. (Formula, Depression, 2 grades. Mod. 86.)

267.

\flat f \flat a \sharp C \sharp \sharp

I:V I:V I VI:IV I V I

Mod. 102. D. Depression, 10' grades. [M, 3, twice.]

268.

$f\#$ g a b c d

I VI:(V) I VI:(V) I VI:IV I V I

Mod. 102. E. (Formula B, Elevation, 2 grades. Mod. 85.)

269.

$f\#$ B c d

I V:II IV I V I

Mod. 103. D. Elevation, 11 grades. [K, 6; C, 5.]

270.

f c d $c\#$ d

I V:I V:(IV) I III:(IV) I V I

Mod. 103. E. (Formula, Depression, 1 grade. Mod. 84.)

271.

f b $a\#$ $c\#$ d

I:V I VI:IV I V I

Mod. 104. E. (Formula B, Elevation, 1 grade. Mod. 83.)

Mod. 105. D. Elevation, 12 grades. [K, 6; C, 5.]

Mod. 105. E. (Formula, Mod. 82, to the Parallel major key.)

9*

Mod. 106. D. Depression, 12 grades. [M, 3, twice.)

276.

Mod. 108. D. Depression, 13 grades. [M, 3, twice; M, 6.]

280.

d# — e — f — G \flat — C \flat — f
 I VI:(V) I VI:(V) I VI:V I IV:I IV I V I

Mod. 108. E. (Formula, Depression, 1 grade. Mod. 84.)

281.

d# — e# a# — C \flat — f
 I : V I VI:IV I V I

Mod. 109. D. Elevation, 14 grades. [H, 5; C, 5, twice.]

282.

a# E \flat — D — C# — f
 I:(IV) I III:(IV) I III:(IV) I V I

Mod. 109. E. (Formula B, Elevation, 2 grades. Mod. 85.)

283.

a# g# — C# — f
 I V:II IV I V I

Mod. 110. D. Depression, 14 grades. [M, 6; D, 4; M, 3, etc.]

284.

a#f B VI:V I I IV:I IV:I IV:(V) I VI:(V) I VI:IV I V I

Mod. 110. E. (Formula, Depression, 2 grades. Mod. 86.)

285.

a#d# I:V I:V I a#p VI:IV I V I

TABLE II.

Universal Formulas for the 872 practicable Modulations.

Explanatory Remarks.

1. Where there are more formulas than one for a given modulation, the mark *A* designates that one which is the *longest*, and which — especially if the modulation belongs to the 1st or the 2^d Division — implies a certain monotonous *regularity*. *B* marks a formula shorter than *A* (short cut); *C*, one shorter than *B* (short cut); and *D*, one still shorter (extra-short cut). *E** denotes a formula necessarily involving an *Enharmonic Change*, — the asterisk being added to the letter in order that this peculiarity may not be forgotten. A formula with double letter, — as, *AA*, *BB*, etc., is a *Harmonic Variant* of, having the same length as, the formula with the same letter single.

2. The *Subdominant Triad* in the Cadence in major, when it immediately follows its Tonic Triad — I — and precedes the $\overset{\text{♯}}{\text{I}}$, may by either *major* or *minor*, at option, as indicated thus: $\left\{ \begin{array}{l} \text{IV} \\ (\text{IV}) \end{array} \right.$.

Or, in this case, and whenever IV occurs immediately before the $\overset{\text{♯}}{\text{I}}$, it may, at pleasure, be changed from major into *minor* on the 2^d half of its value, — a procedure which enlivens the rhythm of the Cadence.

3. The *small figure* over the numeral beginning a formula denotes that particular *Position* (1 stands for *root*-position, 3 for *terce*-position, 5 for *quint*-position) of the initial Triad which will insure the *root*-position in the final Triad of the Cadence (see paragraphs 46, 48).

4. The *repetition* of the numerals of a measure immediately preceding, is indicated thus: | == |.

5. Should the meaning of one or the other of certain terms unavoidably used in some of the formulas to express the difference of pitch between the old and the new Tonic (*e. g.*, “chromatic Step”, double-diminished Seventh,” etc.) not be obvious, a reference to the *example quoted* will make every thing clear.

Universal Modulation-Formulas.

First Division. Major to Major.

Mod. 1. Elevation, one grade: new Tonic, a major Fifth above (minor Fourth below): Key of the Dominant.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} \text{IV} - | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 74.}$$

Mod. 2. Depression, one grade: new Tonic, a major Fifth below (minor Fourth above): Key of the Subdominant.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} - | \text{IV:I} \{ \text{IV}_{(\text{IV})} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 77.}$$

Mod. 3. Elevation, two grades: new Tonic, a major Second above.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} \text{V:IV} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 78.}$$

Mod. 4. Depression, two grades: new Tonic, a major Second below.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} \text{IV:I} | \text{IV:I} \{ \text{IV}_{(\text{IV})} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 81.}$$

Mod. 5. Elevation, three grades: new Tonic, a minor Third below.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} - | \text{V:I} \text{V:IV} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 82.}$$

Mod. 6. Depression, three grades: new Tonic, a minor Third above.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} | \text{IV:I} \text{IV:I} | \text{IV:I} \{ \text{IV}_{(\text{IV})} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} || \quad \text{Fig. 83.}$$

$$B. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} - | (\text{IV:II}) \text{IV} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 115.}$$

Mod. 7. Elevation, four grades; new Tonic, a major Third above.

$$A. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} \text{V:I} | \text{V:I} \text{V:IV} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 84.}$$

$$B. \quad \overset{\textcircled{2}}{\underset{\textcircled{2}}{\text{I}}} \text{V}_{(\text{IV})} | \overset{\textcircled{2}}{\text{I}} \text{V} | \overset{\textcircled{2}}{\text{I}} - | \overset{\textcircled{2}}{\text{I}} - || \quad \text{Fig. 116. See Remark to Par. 141.}$$

Mod. 8. Depression, four grades: new Tonic, a major Third below.

$$A. \quad \frac{2}{2} \hat{1} \quad \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \quad \left\{ \text{IV} \right\}_{(\text{IV})} \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} - \parallel \quad \text{Fig. 85.}$$

$$B. \quad \frac{2}{2} \hat{1} - \mid \underline{(\text{IV}):VI} \quad \text{IV} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \parallel \quad \text{Fig. 117.}$$

Mod. 9. Elevation, five grades: new Tonic, a minor Second below.

$$A. \quad \frac{2}{2} \hat{1} \mid \underline{\text{V:I}} \quad \underline{\text{V:I}} \mid \underline{\text{V:I}} \quad \underline{\text{V:IV}} \mid \hat{1} \quad \text{V} \mid \text{I} \parallel \quad \text{Fig. 86.}$$

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{\text{III:(IV)}} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} - \parallel \quad \text{Fig. 121.}$$

Mod. 10. Depression, five grades: new Tonic, a minor Second above.

$$A. \quad \frac{2}{2} \hat{1} \mid \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \mid == \mid \underline{\text{IV:I}} \quad \left\{ \text{IV} \right\}_{(\text{IV})} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} \parallel \quad \text{Fig. 87.}$$

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{\text{IV:I}} \mid \underline{(\text{IV}):VI} \quad \text{IV} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \parallel \quad \text{Fig. 118.}$$

Mod. 11. Elevation, six grades: new Tonic, a major Fourth above (minor Fifth below).

$$A. \quad \frac{2}{2} \hat{1} \quad \underline{\text{V:I}} \mid \underline{\text{V:I}} \quad \underline{\text{V:I}} \mid \underline{\text{V:I}} \quad \underline{\text{V:IV}} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} - \parallel \quad \text{Fig. 88.}$$

$$B. \quad \frac{2}{2} \hat{1} \mid \underline{\text{V:I}} \quad \underline{\text{III:(IV)}} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} \parallel \quad \text{Fig. 122.}$$

Mod. 12. Depression, six grades: new Tonic, a minor Fifth above (major Fourth below).

$$A. \quad \frac{2}{2} \hat{1} \quad \underline{\text{IV:I}} \mid \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \mid == \mid \underline{\text{IV:I}} \quad \left\{ \text{IV} \right\}_{(\text{IV})} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \parallel \quad \text{Fig. 89.}$$

$$B. \quad \frac{2}{2} \hat{1} \mid \underline{\text{IV:I}} \quad \underline{\text{IV:I}} \mid \underline{(\text{IV}):VI} \quad \text{IV} \mid \hat{1} \quad \text{V} \mid \text{I} \parallel \quad \text{Fig. 119.}$$

Mod. 13. Elevation, seven grades: new Tonic, a chromatic half-step above.

$$A. \quad \frac{2}{2} \hat{1} \mid \underline{\text{V:I}} \quad \underline{\text{V:I}} \mid == \mid \underline{\text{V:I}} \quad \underline{\text{V:IV}} \mid \hat{1} \quad \text{V} \mid \widehat{\text{I} -} \mid \text{I} \parallel \quad \text{Fig. 90.}$$

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{\text{V:I}} \mid \underline{\text{V:I}} \quad \underline{\text{III:(IV)}} \mid \hat{1} \quad \text{V} \mid \text{I} - \parallel \quad \text{Fig. 123.}$$

Mod. 14. Depression, seven grades: new Tonic, a chromatic half-step below.

- A. $\frac{2}{2} \dot{1} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | == | == | \underline{\text{IV}:\text{I}} | \overset{2}{\text{IV}} | \overset{2}{1} - | \text{V} - | \overset{2}{1} - | \overset{2}{1} ||$ Fig. 91.
- B. $\frac{2}{2} \dot{1} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | \underline{(\text{IV}):\text{VI}} | \text{IV} | \overset{2}{1} | \text{V} | \overset{2}{1} - | \overset{2}{1} - ||$ Fig. 120.

Mod. 15. Elevation, eight grades: new Tonic, an augmented Fifth above (diminished Fourth below).

- B. $\frac{2}{2} \dot{1} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{III}:(\text{IV})} | \overset{2}{1} | \text{V} | \text{I} ||$ Fig. 124.
- E*. $\frac{2}{2} \dot{1} - | \underline{(\text{IV}):\text{VI}} | \text{IV} | \overset{2}{1} | \text{V} | \text{I} - ||$ Fig. 132, 133.

Mod. 16. Depression, eight grades: new Tonic, a diminished Fourth above.

- B. $\frac{2}{2} \dot{1} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | == | \underline{(\text{IV}):\text{VI}} | \text{IV} | \overset{2}{1} | \text{V} | \overset{2}{1} - | \overset{2}{1} ||$ Fig. 125.
- E*. $\frac{2}{2} \dot{1} | \underline{\text{VI}:(\text{IV})} | \overset{2}{1} | \text{V} | \overset{2}{1} - | \overset{2}{1} - ||$ Fig. 134.
- EE*. $\frac{2}{2} \dot{1} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{IV}} | \overset{2}{1} | \text{V} | \text{I} - ||$ Fig. 135, 136.

Mod. 17. Elevation, nine grades: new Tonic, an augmented Second above.

- B. $\frac{2}{2} \dot{1} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{I}} | \underline{\text{III}:(\text{IV})} | \overset{2}{1} | \text{V} | \overset{2}{1} - | \overset{2}{1} - ||$ Fig. 126.
- E*. $\frac{2}{2} \dot{1} - | \underline{(\text{IV}):\text{II}} | \text{IV} | \overset{2}{1} | \text{V} | \text{I} - ||$ Fig. 137, 138.

Mod. 18. Depression, nine grades: new Tonic, a diminished Seventh above.

- B. $\frac{2}{2} \dot{1} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | \underline{\text{IV}:\text{I}} | == | \underline{(\text{IV}):\text{VI}} | \text{IV} | \overset{2}{1} | \text{V} | \text{I} - ||$ Fig. 127.
- D. $\frac{2}{2} \dot{1} | \underline{(\text{IV}):\text{III}} | \text{I} | \underline{(\text{IV}):\text{VI}} | \text{IV} | \overset{2}{1} | \text{V} | \text{I} ||$ Fig. 206.
- E*. $\frac{2}{2} \dot{1} - | \underline{\text{V}:\text{I}} | \underline{\text{V}:\text{IV}} | \overset{2}{1} | \text{V} | \text{I} - ||$ Fig. 139.

* See Explanatory Remark, No. 1, at the beginning of this Table.

Mod. 19. Elevation, ten grades: new Tonic, an augmented Sixth above (diminished Third below).

$$B. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{V:I} \quad \underline{V:I} | == | \underline{V:I} \underline{III:(IV)} | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I || \quad \text{Fig. 128.}$$

$$D. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{III:(IV)} | I \underline{III:(IV)} | \overset{3}{\underset{2}{I}} \quad V | I - || \quad \text{Fig. 207.}$$

$$E^*. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV:I} | \underline{IV:I} | \overset{3}{\underset{2}{I}} \quad V | I - || \quad \text{Fig. 140.}$$

Mod. 20. Depression, ten grades: new Tonic, a diminished Third above.

$$B. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV:I} \quad \underline{IV:I} | == | == | \underline{(IV):VI} \quad IV | \overset{3}{\underset{2}{I}} - | V - | \overset{\frown}{I -} | I || \quad \text{Fig. 129.}$$

$$D. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV:I} | \underline{(IV):III} \quad I | \underline{(IV):VI} \quad IV | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I - || \quad \text{Fig. 208.}$$

$$E^*. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{V:IV} | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I - || \quad \text{Fig. 141.}$$

Mod. 21. Elevation, eleven grades: new Tonic, an augmented Third above.

$$B. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{V:I} | \underline{V:I} \quad \underline{V:I} | == | \underline{V:I} \underline{III:(IV)} | \overset{3}{\underset{2}{I}} \quad V | I - || \quad \text{Fig. 130.}$$

$$D. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{V:I} \underline{III:(IV)} | I \underline{III:(IV)} | \overset{3}{\underset{2}{I}} \quad V | I || \quad \text{Fig. 209.}$$

$$E^*. \quad {}^2_2 \overset{3}{\underset{2}{I}} - | \underline{IV:I} | \overset{3}{\underset{2}{I}} \quad V | I - || \quad \text{Fig. 142.}$$

Mod. 22. Depression, eleven grades: new Tonic, a diminished Sixth above (augmented Third below).

$$B. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV:I} | \underline{IV:I} \quad \underline{IV:I} | == | == | \underline{(IV):VI} \quad IV | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I - || \quad \text{Fig. 131.}$$

$$D. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV:I} \quad \underline{IV:I} | \underline{(IV):III} \quad I | \underline{(IV):VI} \quad IV | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I || \quad \text{Fig. 210.}$$

$$E^*. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{IV} - | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I - || \quad \text{Fig. 143.}$$

Mod. 23. Elevation, thirteen grades: new Tonic, a diminished Fifth below (augmented Fourth above).

$$D. \quad {}^2_2 \overset{3}{\underset{2}{I}} | \underline{V:I} \quad \underline{V:I} | \underline{V:I} \quad \underline{III:(IV)} | I \underline{III:(IV)} | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I || \quad \text{Fig. 211.}$$

$$E^*. \quad \underline{I:IV} - | \overset{3}{\underset{2}{I}} \quad V | \overset{\frown}{I -} | I - || \quad \text{Fig. 144a.}$$

Mod. 24. Depression, thirteen grades: new Tonic, a diminished Fifth above (augmented Fourth below).

D. $\frac{2}{2} \text{I} | \text{(IV):III} | \text{I} | \text{(IV):III} | \text{I} | \text{(IV:II)} | \text{IV} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - | \text{I} ||$ Fig. 212.

E*. $\frac{2}{2} \text{I} - | \text{IV:I} | \text{(IV} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - ||$ Fig. 144b.

Mod. 25. Elevation, fourteen grades: new Tonic, a chromatic step above.

D. $\frac{2}{2} \text{I} | \text{VI:(IV)} | \text{I} | \text{III:(IV)} | \text{I} | \text{III:(IV)} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - | \text{I} - ||$ Fig. 213.

E*. $\frac{2}{2} \text{I} | \text{V:IV} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - | \text{I} - ||$ Fig. 144c.

Mod. 26. Depression, fourteen grades: new Tonic, a chromatic step below.

D. $\frac{2}{2} \text{I} | \text{(IV):III} | \text{I} | \text{(IV):III} | \text{I} | \text{(IV):VI} | \text{IV} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - | \text{I} ||$ Fig. 214.

E*. $\frac{2}{2} \text{I} | \text{IV:I} | \text{IV:I} | \text{(IV} | \text{I}^{\frac{2}{2}} | \text{V} | \text{I} - | ||$ Fig. 144d.

Second Division. Minor to Minor.

Mod. 27. Elevation, one grade: new Tonic, a major Fifth above (minor Fourth below): Key of the Dominant.

A. $\frac{2}{2} \text{I:IV} - | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 98.

Mod. 28. Depression, one grade: new Tonic, a major Fifth below (minor Fourth above): Key of the Subdominant.

A. $\frac{2}{2} \text{I:V} - | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - ||$ Fig. 99.

Mod. 29. Elevation, two grades: new Tonic, a major Second above.

A. $\frac{2}{2} \text{I} | \text{V:IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 100.

Mod. 30. Depression, two grades: new Tonic, a major Second below.

A. $\frac{2}{2} \text{I:V} | \text{I:V} | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - ||$ Fig. 101.

Mod. 31. Elevation, three grades: new Tonic, a minor Third below.

$$A. \quad \frac{2}{2} \text{f} - | \underline{\text{V:I}} \quad \underline{\text{V:IV}} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} - || \quad \text{Fig. 102.}$$

Mod. 32. Depression, three grades: new Tonic, a minor Third above.

$$A. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | \underline{\text{I:IV}} \quad | \underline{\text{I:V}} \quad | \underline{\text{I:V}} | \text{I} \quad \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} || \quad \text{Fig. 103.}$$

Mod. 33. Elevation, four grades: new Tonic, a major Third above.

$$A. \quad \frac{2}{2} \text{f}^{\frac{5}{2}} | \underline{\text{V:I}} | \underline{\text{V:I}} \quad | \underline{\text{V:IV}} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} - || \quad \text{Fig. 104.}$$

$$AA. \quad \frac{2}{2} \text{f}^{\frac{5}{2}} (\text{V}) : \underline{\text{III}} \quad | \quad \underline{\text{VII}} \quad \text{IV} \quad | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} - || \quad \text{Fig. 215.}$$

Mod. 34. Depression, four grades: new Tonic, a major Third below.

$$A. \quad \frac{2}{2} \text{f}^{\frac{5}{2}} | \underline{\text{I:V}} \quad | \underline{\text{I:V}} | \underline{\text{I:V}} \quad | \underline{\text{I:V}} | \text{I} \quad \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \widehat{\text{I} - | \text{I} -} || \quad \text{Fig. 105.}$$

$$AA. \quad \frac{2}{2} \text{f}^{\frac{5}{2}} | \widehat{\text{V} | \text{V}} \quad | \underline{\text{III}} : (\text{V}) | \text{I} \quad \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \widehat{\text{I} - | \text{I} -} || \quad \text{Fig. 216.}$$

Mod. 35. Elevation, five grades: new Tonic, a minor Second below.

$$A. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | \underline{\text{V:I}} \quad | \underline{\text{V:I}} | \underline{\text{V:I}} \quad | \underline{\text{V:IV}} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} || \quad \text{Fig. 106.}$$

$$B. \quad \frac{2}{2} \text{f} - | (\text{V}) : \underline{\text{VI}} \quad | \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} - || \quad \text{Fig. 145. See Par. 172.}$$

Mod. 36. Depression, five grades: new Tonic, a minor Second above.

$$A. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | \underline{\text{I:V}} \quad | \underline{\text{I:V}} \quad | \underline{\text{I:V}} | = = | \text{I} \quad \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \widehat{\text{I} - | \text{I} -} || \quad \text{Fig. 107.}$$

$$B. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | \underline{\text{VI}} : (\text{V}) | \text{I} \quad \text{IV} | \text{f}^{\frac{3}{2}} (\text{V}) | \text{I} - || \quad \text{Fig. 146.}$$

Mod. 37. Elevation, six grades: new Tonic, a major Fourth above (minor Fifth below).

$$A. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | \underline{\text{V:I}} | \underline{\text{V:I}} \quad | \underline{\text{V:I}} | \underline{\text{V:I}} \quad | \underline{\text{V:IV}} | \text{f}^{\frac{3}{2}} (\text{V}) | \widehat{\text{I} - | \text{I} -} || \quad \text{Fig. 108.}$$

$$C. \quad \frac{2}{2} \text{f}^{\frac{3}{2}} | (\text{V}) : \underline{\text{VI}} \quad | \underline{\text{I:IV}} | \text{f}^{\frac{3}{2}} (\text{V}) | \widehat{\text{I} - | \text{I} -} || \quad \text{Fig. 147.}$$

Mod. 38. Depression, six grades: new Tonic, a minor Fifth above (major Fourth below).

$$A. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | \underline{1:V} \underline{1:V} | = = | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | I - || \quad \text{Fig. 109.}$$

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | I || \quad \text{Fig. 148.}$$

$$BB. \quad \frac{2}{2} \frac{1}{2} | \underline{VI:III} \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | I || \quad \text{Fig. 218.}$$

Mod. 39. Elevation, seven grades: new Tonic, a chromatic half-step above.

$$A. \quad \frac{2}{2} \frac{1}{2} | \underline{V:I} \quad \underline{V:I} | = = | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} \frac{1}{2} (V) | \widehat{I - I} || \quad \text{Fig. 110.}$$

$$C. \quad \frac{2}{2} \frac{1}{2} (V): \underline{VI} | I \quad \underline{V:IV} | \frac{1}{2} \frac{1}{2} (V) | I - || \quad \text{Fig. 149.}$$

Mod. 40. Depression, seven grades: new Tonic, a chromatic half-step below.

$$A. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | \underline{1:V} \quad \underline{1:V} | = = | = = | I \quad IV | \frac{1}{2} \frac{1}{2} - | (V) - | \widehat{I - I} || \quad \text{Fig. 111.}$$

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{Fig. 150.}$$

$$BB. \quad \frac{2}{2} \frac{1}{2} \underline{VI:VII} | \underline{III} \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{Fig. 219.}$$

Mod. 41. Elevation, eight grades: new Tonic, an augmented Fifth above (diminished Fourth below).

$$C. \quad \frac{2}{2} \frac{1}{2} | (V): \underline{VI} \quad I | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} \frac{1}{2} (V) | I || \quad \text{Fig. 151.}$$

Mod. 42. Depression, eight grades: new Tonic, a diminished Fourth above.

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | \underline{1:V} \quad \underline{1:V} | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | \widehat{I - I} || \quad \text{Fig. 152.}$$

$$BB. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | I \quad \underline{VI:VII} | \underline{III} \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | I - | I || \quad \text{Fig. 220.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{V:I} | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} \frac{1}{2} (V) | I - || \quad \text{Fig. 159, 160, 161.}$$

Mod. 43. Elevation, nine grades: new Tonic, an augmented Second above.

$$C. \quad \frac{2}{2} \frac{1}{2} (V): \underline{VI} | I \quad \underline{V:I} | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{Fig. 153.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | \underline{1:V} \quad \underline{1:V} | I \quad IV | \frac{1}{2} \frac{1}{2} (V) | I || \quad \text{Fig. 162, 163.}$$

Mod. 44. Depression, nine grades: new Tonic, a diminished Seventh above.

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | \underline{1:V} | \underline{1:V} | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} - | (V) - | \widehat{I - I} - || \text{ Fig. 154.}$$

$$BB. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | I \quad \underline{VI:VII} | \underline{III} \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} - | (V) - | \widehat{I - I} - || \\ \text{ Fig. 221.}$$

$$E*. \quad \frac{1}{2} - | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} (V) | I - | \quad \text{ Fig. 164.}$$

Mod. 45. Elevation, ten grades: new Tonic, an augmented Sixth above (diminished Third below).

$$C. \quad \frac{2}{2} \frac{1}{2} | (\underline{V}):VI \quad I | \underline{V:I} \quad \underline{V:I} | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} (V) | \widehat{I - I} || \quad \text{ Fig. 155.}$$

$$D. \quad \frac{2}{2} \frac{1}{2} | (\underline{V}):VI \quad I | (\underline{V}):VI \quad IV | \frac{1}{2} (V) | I || \quad \text{ Fig. 222.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | I \quad IV | \frac{1}{2} (V) | I - || \quad \text{ Fig. 165.}$$

Mod. 46. Depression, ten grades: new Tonic, a diminished Third above.

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} | \underline{1:V} \quad \underline{1:V} | = = | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} - | (V) - | \widehat{I - I} || \text{ Fig. 156.}$$

$$D. \quad \frac{2}{2} \frac{1}{2} \underline{VI:(V)} | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{ Fig. 223.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{V:IV} | \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{ Fig. 166.}$$

Mod. 47. Elevation, eleven grades: new Tonic, an augmented Third above.

$$C. \quad \frac{2}{2} \frac{1}{2} (\underline{V}):VI | I \quad \underline{V:I} | \underline{V:I} \quad \underline{V:I} | \underline{V:I} \quad \underline{V:IV} | \frac{1}{2} - | (V) - | \widehat{I - I} - || \text{ Fig. 157.}$$

$$D. \quad \frac{2}{2} \frac{1}{2} | (\underline{V}):VI \quad I | (\underline{V}):VI \quad \underline{I:IV} | \frac{1}{2} (V) | I || \quad \text{ Fig. 224.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} - | I \quad IV | \frac{1}{2} (V) | I - || \quad \text{ Fig. 167.}$$

Mod. 48. Depression, eleven grades: new Tonic, a diminished Sixth above.

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{1:V} \underline{1:V} | \underline{1:V} \underline{1:V} | = = | I \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} (V) | \widehat{I - I} - || \text{ Fig. 158.}$$

$$D. \quad \frac{2}{2} \frac{1}{2} | \underline{VI:(V)} \quad I | \underline{VI:III} \quad \underline{VI:(V)} | I \quad IV | \frac{1}{2} (V) | \widehat{I - I} || \quad \text{ Fig. 225.}$$

$$E*. \quad \frac{2}{2} \frac{1}{2} \underline{1:IV} - | \frac{1}{2} (V) | \widehat{I - I} - || \quad \text{ Fig. 168.}$$

Mod. 49. Elevation, thirteen grades: new Tonic, an augmented Fourth above (diminished Fifth below).

D. $\frac{2}{2} \text{I} | (\text{V}) : \text{VI} | \text{I} | (\text{V}) : \text{VI} | \text{I} | \text{V} : \text{I} | \text{V} : \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} ||$ Fig. 226.

E*. $\frac{2}{2} \text{I} : \text{IV} - | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 169.

Mod. 50. Depression, thirteen grades: new Tonic, a diminished Fifth above (augmented Fourth below).

D. $\frac{2}{2} \text{I} : \text{V} | \text{I} | \text{VI} : \text{III} | \text{VI} : (\text{V}) | \text{I} | \text{VI} : \text{III} | \text{VI} : (\text{V}) | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} - | (\text{V}) - | \text{I} - | \text{I} ||$ Fig. 227.

E*. $\frac{2}{2} \text{I} : \text{V} - | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - ||$ Fig. 170.

Mod. 51. Elevation, fourteen grades: new Tonic, a chromatic Step above.

D. $\frac{2}{2} \text{I} | \text{V} : \text{I} | (\text{V}) : \text{VI} | \text{I} | (\text{V}) : \text{VI} | \text{III} : \text{VI} | \text{I} | \text{V} : \text{IV} | \text{I}^{\frac{2}{2}} - | (\text{V}) - | \text{I} - | \text{I} - ||$ Fig. 228.

E*. $\frac{2}{2} \text{I} | \text{V} : \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 171.

Mod. 52. Depression, fourteen grades: new Tonic, a chromatic Step below.

D. $\frac{2}{2} \text{I} : \text{V} | \text{I} : \text{V} | \text{I} | \text{VI} : (\text{V}) | \text{I} | \text{VI} : \text{III} | \text{VI} : \text{III} | \text{VI} : (\text{V}) | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 229.

E*. $\frac{2}{2} \text{I} : \text{V} | \text{I} : \text{V} | \text{I} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - ||$ Fig. 172.

Third Division. Major to Minor.

NB. The two keys in each of the modulations of this and the following Division are — unlike the case of the first two Divisions — not regarded as *quint-related*.* Hence, the grades of Elevation and Depression have reference here to the respective *signatures* of the two keys (see Par. 79).

Mod. 53. To the parallel minor key: new Tonic, a minor Third below.

A. $\frac{2}{2} \text{I} - | \text{IV} : \text{VI} | \text{IV} | \text{I}^{\frac{2}{2}} (\text{V}) | \text{I} - ||$ Fig. 173.

* In the *first* modulation of this Division (Mod. 53), the two keys are of course *terce-related*. So also in the *second* modulation (54). The same holds good of the first and the second modulation of the Fourth Division.

Mod. 54. Elevation, one grade: new Tonic, a major Third above: key of the Mediant.

A. $\frac{2}{2} \dot{1} \text{ VI IV} | \dot{1} \text{ (V)} | \text{I} - | \text{I} - ||$ Fig. 174.

Mod. 55. Depression, one grade: new Tonic, a major Second above: key of the Supertonic.

A. $\frac{2}{2} \dot{1} \text{ IV:I IV:VI IV} | \dot{1} \text{ (V)} | \text{I} - ||$ Fig. 175.

Mod. 56. Elevation, two grades: new Tonic, a minor Second below.

A. $\frac{2}{2} \dot{1} - | \text{V:VI IV} | \dot{1} \text{ (V)} | \text{I} - ||$ Fig. 176.

B. $\frac{2}{2} \dot{1} \text{ III:IV} | \dot{1} \text{ (V)} | \text{I} - | \text{I} - ||$ Fig. 177.

Mod. 57. Depression, two grades: new Tonic, a major Fifth above (minor Fourth below).

A. $\frac{2}{2} \dot{1} | \text{IV:I IV:I IV:VI IV} | \dot{1} \text{ (V)} | \text{I} ||$ Fig. 178.

Mod. 58. Elevation, three grades: new Tonic, a major Fourth above (minor Fifth below).

B. $\frac{2}{2} \dot{1} | \text{V:I III:IV} | \dot{1} \text{ (V)} | \text{I} - | \text{I} ||$ Fig. 179.

Mod. 59. Depression, three grades: new Tonic, the same, — change of Mode only.

A. $\frac{2}{2} \dot{1} \text{ IV:I IV:I IV:I IV:VI IV} | \dot{1} \text{ (V)} | \text{I} - | \text{I} - ||$ Fig. 180.

Mod. 60. Elevation, four grades: new Tonic, a chromatic half-step above.

B. $\frac{2}{2} \dot{1} \text{ V:I V:I III:IV} | \dot{1} \text{ (V)} | \text{I} - ||$ Fig. 181.

Mod. 61. Depression, four grades: new Tonic, a minor Fourth above (major Fifth below).

B. $\frac{2}{2} \dot{1} \text{ (V)} - | \text{I IV} | \dot{1} \text{ (V)} | \text{I} - ||$ Fig. 182.

Mod. 62. Elevation, five grades: new Tonic, an augmented Fifth above (diminished Fourth below).

B. $\frac{2}{2} \dot{1} | \text{V:I V:I V:I III:IV} | \dot{1} \text{ (V)} | \text{I} ||$ Fig. 183.

Mod. 63. Depression, five grades: new Tonic, a major Second below.

B. $\frac{2}{2} \frac{1}{1} \underline{\text{IV:}(\text{V})} | \text{I} \text{ IV} | \frac{1}{1} (\text{V}) | \text{I} - ||$ Fig. 184.

Mod. 64. Elevation, six grades: new Tonic, an augmented Second above.

C. $\frac{2}{2} \frac{1}{1} \underline{\text{VI:}(\text{IV})} | \text{I} \underline{\text{III:IV}} | \frac{1}{1} (\text{V}) | \text{I} - ||$ Fig. 185.

Mod. 65. Depression, six grades: new Tonic, a minor Third above (enharmonic equivalent of the new Tonic in Mod. 64).

B. $\frac{2}{2} \frac{1}{1} | \underline{\text{IV:I}} \underline{\text{IV:}(\text{V})} | \text{I} \text{ IV} | \frac{1}{1} (\text{V}) | \text{I} ||$ Fig. 186.

Mod. 66. Elevation, seven grades: new Tonic, an augmented Sixth above (diminished Third below).

C. $\frac{2}{2} \frac{1}{1} | \underline{\text{III:}(\text{IV})} \text{I} | \underline{\text{V:VI}} \text{IV} | \frac{1}{1} (\text{V}) | \text{I} ||$ Fig. 187.

Mod. 67. Depression, seven grades: new Tonic, a major Third below.

B. $\frac{2}{2} \frac{1}{1} \underline{\text{IV:I}} | \underline{\text{IV:I}} \underline{\text{IV:}(\text{V})} | \text{I} \text{ IV} | \frac{1}{1} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 188.

Mod. 68. Elevation, eight grades: new Tonic, an augmented Third above.

CC. $\frac{2}{2} \frac{1}{1} | \underline{\text{V:I}} \underline{\text{III:}(\text{IV})} | \text{I} \underline{\text{III:IV}} | \frac{1}{1} (\text{V}) | \text{I} ||$ Fig. 230.

E*. $\frac{2}{2} \frac{1}{1} \underline{\text{I:}(\text{V})} - | \text{I} \text{ IV} | \frac{1}{1} (\text{V}) | \text{I} - ||$ Fig. 231.

Mod. 69. Depression, eight grades: new Tonic, a minor Second above.

B. $\frac{2}{2} \frac{1}{1} | \underline{\text{IV:I}} \underline{\text{IV:I}} | \underline{\text{IV:I}} \underline{\text{IV:}(\text{V})} | \text{I} \text{ IV} | \frac{1}{1} (\text{V}) | \text{I} - | \text{I} ||$ Fig. 232.

E*. $\frac{2}{2} \frac{1}{1} \underline{\text{V:I}} | \underline{\text{V:I}} \underline{\text{III:IV}} | \frac{1}{1} (\text{V}) | \text{I} - ||$ Fig. 233.

Mod. 70. Elevation, nine grades: new Tonic, the enharmonic equivalent.

CC. $\frac{2}{2} \frac{1}{1} \underline{\text{V:I}} | \underline{\text{V:I}} \underline{\text{III:}(\text{IV})} | \text{I} \underline{\text{III:IV}} | \frac{1}{1} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 234.

E*. $\frac{2}{2} \frac{1}{1} \underline{\text{IV:I}} | \underline{\text{IV:I}} \underline{\text{IV:I}} | \underline{\text{IV:VI}} \text{IV} | \frac{1}{1} (\text{V}) | \text{I} - | \text{I} - ||$ Fig. 235.

Mod. 71. Depression, nine grades: new Tonic, a minor Fifth above (major Fourth below).

D. $\frac{2}{2} \dot{1}(\underline{V}) | I \underline{VI}(\underline{V}) | I IV | \dot{1}^{\frac{9}{8}}(V) | I ||$ Fig. 236.

E*. $\frac{2}{2} \dot{1} | \underline{V:I} \underline{III:IV} | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} ||$ Fig. 237.

Mod. 72. Elevation, ten grades: new Tonic, an augmented Fourth above (diminished Fifth below).

CC. $\frac{2}{2} \dot{1} | \underline{III:(IV)} I | \underline{V:I} \underline{V:I} \underline{V:I} \underline{III:IV} | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} ||$ Fig. 238.

E*. $\frac{2}{2} \dot{1} | \underline{IV:I} \underline{IV:I} | \underline{IV:VI} IV | \dot{1}^{\frac{9}{8}}(V) | I ||$ Fig. 239.

Mod. 73. Depression, ten grades: new Tonic, a chromatic half-step below.

D. $\frac{2}{2} \dot{1} \underline{IV:(V)} | I \underline{VI:(V)} | I IV | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} = ||$ Fig. 240.

E*. $\frac{2}{2} \dot{1} \underline{III:IV} | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} = ||$ Fig. 241.

Mod. 74. Elevation, eleven grades: new Tonic, a chromatic step above.

D. $\frac{2}{2} \dot{1} \underline{III:(IV)} | I \underline{III:(IV)} | \underline{I:VI} IV | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} = ||$ Fig. 242.

E*. $\frac{2}{2} \dot{1} \underline{IV:I} | \underline{IV:VI} IV | \dot{1}^{\frac{9}{8}}(V) | I = ||$ Fig. 243.

Mod. 75. Depression, eleven grades: new Tonic, a diminished Fourth above.

D. $\frac{2}{2} \dot{1} | \underline{IV:I} \underline{IV:(V)} | I \underline{VI:(V)} | I IV | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} ||$ Fig. 244.

E*. $\frac{2}{2} \dot{1} \underline{VI} IV | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} = ||$ Fig. 245.

Mod. 76. Elevation, twelve grades: new Tonic, a double augmented Fifth above (double diminished Fourth below).

D. $\frac{2}{2} \dot{1} | \underline{III:(IV)} I | \underline{III:(IV)} I | \underline{V:VI} IV | \dot{1}^{\frac{9}{8}}(V) | \overset{\frown}{I-I} ||$ Fig. 246.

E*. $\frac{2}{2} \dot{1} - | \underline{IV:VI} IV | \dot{1}^{\frac{9}{8}}(V) | I = ||$ Fig. 247.

Mod. 77. Depression, twelve grades: new Tonic, a diminished Seventh above.

$$D. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:(\text{V})} \mid \text{I} \mid \underline{\text{VI}:(\text{V})} \mid \text{I} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} - \mid (\text{V}) - \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel$$

Fig. 248.

$$E*. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} - \mid \underline{\text{IV}:\text{VI}} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \text{I} - \parallel \quad \text{Fig. 249.}$$

Mod. 78. Elevation, thirteen grades: new Tonic, a double-augmented Second above.

$$D. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{III}:(\text{IV})} \mid \text{I} \mid \underline{\text{III}:(\text{IV})} \mid \text{I} \mid \underline{\text{III}:\text{I}} \mid \underline{\text{V}:\text{IV}} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel \quad \text{Fig. 250.}$$

$$E*. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}}:\text{VI} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel \quad \text{Fig. 251.}$$

Mod. 79. Depression, thirteen grades: new Tonic, a diminished Third above.

$$D. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:(\text{V})} \mid \text{I} \mid \underline{\text{VI}:(\text{V})} \mid \text{I} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} - \mid (\text{V}) - \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel$$

Fig. 252.

$$E*. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{VI}} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \text{I} - \parallel \quad \text{Fig. 253.}$$

Mod. 80. Elevation, fourteen grades: new Tonic, a double-augmented Sixth above.

$$D. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{V}:\text{I}} \mid \underline{\text{III}:(\text{IV})} \mid \text{I} \mid \underline{\text{V}:\text{I}} \mid \underline{\text{III}:(\text{IV})} \mid \text{I} \mid \underline{\text{III}:\text{IV}} \mid \overset{\text{f}}{\text{I}} - \mid (\text{V}) - \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel$$

Fig. 254.

$$E*. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{III}:\text{IV}} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel \quad \text{Fig. 255.}$$

Mod. 81. Depression, fourteen grades: new Tonic, a diminished Sixth above (augmented Third below).

$$D. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid (\text{IV})\text{:I} \mid \underline{\text{VI}:(\text{V})} \mid \text{I} \mid \underline{\text{VI}:(\text{V})} \mid \text{I} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel \quad \text{Fig. 256.}$$

$$E*. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{I}} \mid \underline{\text{IV}:\text{VI}} \mid \text{IV} \mid \overset{\text{f}}{\text{I}} (\text{V}) \mid \text{I} \parallel \quad \text{Fig. 257.}$$

Fourth Division. Minor to Major.

Mod. 82. To the parallel major key: new Tonic, a minor Third above.

$$A. \quad \frac{2}{2} \text{ } \overset{\text{f}}{\text{I}} \mid \underline{\text{VI}:\text{IV}} \mid \overset{\text{f}}{\text{I}} \text{ V} \mid \overset{\text{f}}{\text{I}} - \mid \text{I} - \parallel \quad \text{Fig. 189.}$$

Mod. 83. Elevation, one grade: new Tonic, a major Second below: Key of the (normal) Subtonic.

A. $\frac{2}{2} \hat{1} - | \underline{V:I} \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} - ||$ Fig. 190.

B. $\frac{2}{2} \hat{1} \underline{II} \quad IV | \hat{1} \quad V | \hat{1} - | \hat{1} - ||$ Fig. 191.

Mod. 84. Depression, one grade: new Tonic, a major Third below: Key of the Submediant.

A. $\frac{2}{2} \hat{1} \underline{V} - | \hat{1} \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} - ||$ Fig. 192.

Mod. 85. Elevation, two grades: new Tonic, a minor Fourth above (major Fifth below).

A. $\frac{2}{2} \hat{1} \quad \underline{V:I} | \underline{V:I} \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} - ||$ Fig. 193.

B. $\frac{2}{2} \hat{1} | \underline{V:II} \quad IV | \hat{1} \quad V | \hat{1} - | \hat{1} ||$ Fig. 194.

Mod. 86. Depression, two grades: new Tonic, a minor Second above.

A. $\frac{2}{2} \hat{1} \underline{V} \quad \underline{I:V} | \hat{1} \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} - ||$ Fig. 195.

Mod. 87. Elevation, three grades: new Tonic, the same, — change of Mode only.

B. $\frac{2}{2} \hat{1} \quad \underline{V:I} | \underline{V:II} \quad IV | \hat{1} \quad V | \hat{1} - ||$ Fig. 196.

Mod. 88. Depression, three grades: new Tonic, a minor Fifth above (major Fourth below).

A. $\frac{2}{2} \hat{1} \underline{V} | \underline{I:V} \quad \underline{I:V} | \hat{1} \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} ||$ Fig. 197.

Mod. 89. Elevation, four grades: new Tonic, a minor Fourth below (major Fifth above).

B. $\frac{2}{2} \hat{1} \underline{(IV)} - | \hat{1} \quad V | \hat{1} - | \hat{1} - ||$ Fig. 198.

Mod. 90. Depression, four grades: new Tonic, a chromatic half-step below.

B. $\frac{2}{2} \hat{1} \quad \underline{VI:(V)} | \underline{II} \quad IV | \hat{1} \quad V | \hat{1} - ||$ Fig. 199.

Mod. 91.. Elevation, five grades: new Tonic, a major Second above.

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{v:(IV)} | \hat{1} \quad V | \widehat{I -} | I - \parallel \quad \text{Fig. 200.}$$

Mod. 92. Depression, five grades: new Tonic, a diminished Fourth above.

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{VI:(V)} | I \quad \underline{VI:IV} | \hat{1} \quad V | \hat{1} - \parallel \quad \text{Fig. 201.}$$

Mod. 93. Elevation, six grades: new Tonic, a minor Third below.

$$B. \quad \frac{2}{2} \hat{1} - | \underline{v:I} \quad \underline{v:(IV)} | \hat{1} \quad V | \hat{1} - \parallel \quad \text{Fig. 202.}$$

Mod. 94. Depression, six grades: new Tonic, a diminished Seventh above.

$$B. \quad \frac{2}{2} \hat{1} : V | I \quad \underline{VI:(V)} | I \quad \underline{VI:IV} | \hat{1} \quad V | I \parallel \quad \text{Fig. 203.}$$

Mod. 95. Elevation, seven grades: new Tonic, a major Third above.

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{v:I} | \underline{v:I} \quad \underline{v:(IV)} | \hat{1} \quad V | \hat{1} - \parallel \quad \text{Fig. 204.}$$

Mod. 96. Depression, seven grades: new Tonic, a diminished Third above.

$$B. \quad \frac{2}{2} \hat{1} : V \quad I : V | I \quad \underline{VI:(V)} | I \quad \underline{VI:IV} | \hat{1} \quad V | \widehat{I -} | I - \parallel \quad \text{Fig. 205.}$$

Mod. 97. Elevation, eight grades: new Tonic, a minor Second below.

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{v:I} \quad \underline{v:I} | \underline{v:I} \quad \underline{v:(IV)} | \hat{1} \quad V | I \parallel \quad \text{Fig. 258.}$$

$$E^*. \quad \frac{2}{2} \hat{1} \quad \underline{VI:(V)} | \underline{I:II} \quad IV | \hat{1} \quad V | \hat{1} - \parallel \quad \text{Fig. 259.}$$

Mod. 98. Depression, eight grades: new Tonic, an augmented Third below (diminished Sixth above).

$$B. \quad \frac{2}{2} \hat{1} \quad \underline{VI:V} \quad I | \underline{IV:I} \quad \underline{IV:(V)} | I \quad \underline{VI:IV} | \hat{1} \quad V | \widehat{I -} | I \parallel \quad \text{Fig. 260.}$$

$$E^*. \quad \frac{2}{2} \hat{1} : (IV) - | \hat{1} \quad V | \widehat{I -} | I - \parallel \quad \text{Fig. 261.}$$

Mod. 99. Elevation, nine grades: new Tonic, a major Fourth above (minor Fifth below).

$$D. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:(IV)}} | \underline{\underline{I}} \quad \underline{\underline{III:(IV)}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} || \quad \text{Fig. 262.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:V}} | \underline{\underline{I:V}} | \underline{\underline{I:V}} | \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} || \quad \text{Fig. 263.}$$

Mod. 100. Depression, nine grades: new Tonic, the enharmonic equivalent.

$$B. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{VI:V}} | \underline{\underline{I}} \quad \underline{\underline{IV:I}} | \underline{\underline{IV:I}} \quad \underline{\underline{IV:(V)}} | \underline{\underline{I}} \quad \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} - | V - | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 264.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{V:I}} | \underline{\underline{V:II}} \quad \underline{\underline{IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 265.}$$

Mod. 101. Elevation, ten grades: new Tonic, a chromatic half-step above.

$$D. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{V:(IV)}} | \underline{\underline{I}} \quad \underline{\underline{III:(IV)}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 266.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:V}} \quad \underline{\underline{I:V}} | \underline{\underline{I}} \quad \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 267.}$$

Mod. 102. Depression, ten grades: new Tonic, an augmented Fourth below (diminished Fifth above).

$$D. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{VI:(V)}} | \underline{\underline{I}} \quad \underline{\underline{VI:(V)}} | \underline{\underline{I}} \quad \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 268.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{V:II}} \quad \underline{\underline{IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} || \quad \text{Fig. 269.}$$

Mod. 103. Elevation, eleven grades: new Tonic, a diminished Fourth below (augmented Fifth above).

$$D. \quad \frac{2}{2} \frac{1}{2} | \underline{\underline{V:I}} \quad \underline{\underline{V:(IV)}} | \underline{\underline{I}} \quad \underline{\underline{III:(IV)}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} || \quad \text{Fig. 270.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:V}} - | \underline{\underline{I}} \quad \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 271.}$$

Mod. 104. Depression, eleven grades: new Tonic, a chromatic Step below.

$$D. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:V}} | \underline{\underline{I}} \quad \underline{\underline{VI:(V)}} | \underline{\underline{I}} \quad \underline{\underline{VI:(V)}} | \underline{\underline{I}} \quad \underline{\underline{VI:IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} || \quad \text{Fig. 272.}$$

$$E^*. \quad \frac{2}{2} \frac{1}{2} \underline{\underline{I:II}} \quad \underline{\underline{IV}} | \overset{9}{\underline{\underline{I}}} \quad V | \overset{9}{\underline{\underline{I}}} - | \overset{9}{\underline{\underline{I}}} - || \quad \text{Fig. 273.}$$

Mod. 105. Elevation, twelve grades: new Tonic, an augmented Second above.

D. $\frac{2}{2} \hat{1} \underline{V:I} | \underline{V:I} \underline{V:(IV)} | \underline{I} \underline{III:(IV)} | \hat{1} V | \hat{1} - | \hat{1} - ||$ Fig. 274.

E*. $\frac{2}{2} \hat{1} \underline{VI:IV} | \hat{1} V | \hat{1} - | \hat{1} - ||$ Fig. 275.

Mod. 106. Depression, twelve grades: new Tonic, a double-diminished Fourth above.

D. $\frac{2}{2} \hat{1}:V \underline{I:V} | \underline{VI:(V)} | \underline{VI:(V)} | \underline{VI:IV} | \hat{1} - | V - | \hat{1} - | \hat{1} - ||$ Fig. 276.

E*. $\frac{2}{2} \hat{1} \underline{VI:IV} | \hat{1} V | \hat{1} - | \hat{1} - ||$ Fig. 277.

Mod. 107. Elevation, thirteen grades: new Tonic, a diminished Third below (augmented Sixth above).

D. $\frac{2}{2} \hat{1} | \underline{V:I} \underline{V:I} | \underline{V:(IV)} | \underline{I} \underline{III:(IV)} | \hat{1} V | \hat{1} - | \hat{1} ||$ Fig. 278.

E*. $\frac{2}{2} \hat{1}:II \underline{IV} | \hat{1} V | \hat{1} - | \hat{1} - ||$ Fig. 279.

Mod. 108. Depression, thirteen grades: new Tonic, a double-diminished Seventh above.

D. $\frac{2}{2} \hat{1} | \underline{VI:(V)} \underline{I:VI:(V)} | \underline{I:VI:V} | \underline{I:IV:I} \underline{IV} | \hat{1} - | V - | \hat{1} - | \hat{1} ||$ Fig. 280.

E*. $\frac{2}{2} \hat{1}:V - | \underline{VI:IV} | \hat{1} V | \hat{1} - ||$ Fig. 281.

Mod. 109. Elevation, fourteen grades: new Tonic, an augmented Third above.

D. $\frac{2}{2} \hat{1}:(IV) | \underline{I} \underline{III:(IV)} | \underline{I} \underline{III:(IV)} | \hat{1} V | \hat{1} ||$ Fig. 282.

E*. $\frac{2}{2} \hat{1} | \underline{V:II} \underline{IV} | \hat{1} V | \hat{1} - | \hat{1} ||$ Fig. 283.

Mod. 110. Depression, fourteen grades: new Tonic, a double-diminished Third above.

D. $\frac{2}{2} \hat{1} \underline{VI:(V)} | \underline{I} \underline{VI:(V)} | \underline{VI:V} | \underline{I} \underline{IV:V} | \underline{IV} | \hat{1} V | \hat{1} - | \hat{1} - ||$ Fig. 284.

E*. $\frac{2}{2} \hat{1}:V \underline{I:V} | \underline{VI:IV} | \hat{1} V | \hat{1} - ||$ Fig. 285.

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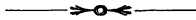
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~~MAR 15 1968~~

JUN 5 1972

